THE PIONEER WOODSMAN AS HE IS RELATED TO LUMBERING IN THE NORTHWEST

By
GEORGE HENRY WARREN

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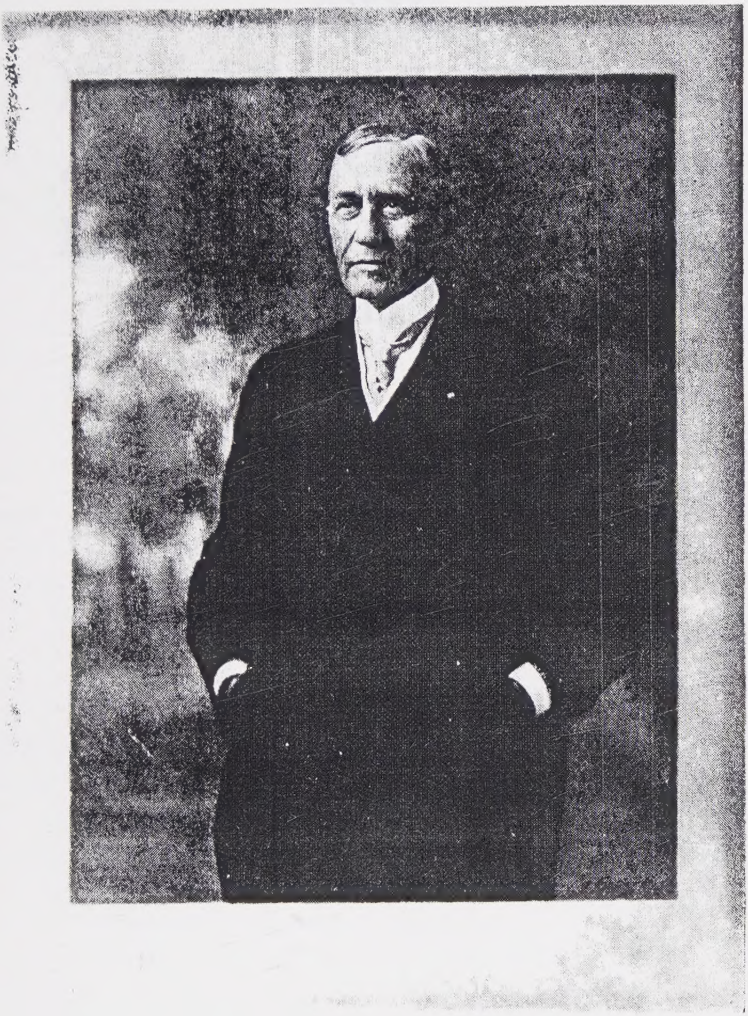

Geo. H. Warren

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By George Henry Warren

I DEDICATE
THIS BOOK TO THE MEMORY OF
WILLIAM S. PATRICK,
GUIDING FRIEND AND HELPFUL COUNSELOR
OF MY EARLIER MANHOOD YEARS.

Foreword.

THE aim will be to take the reader along on the journey of the pioneer woodsman, from comfortable hearthstone, from family, friends, books, magazines, and daily papers, and to disappear with him from all evidences of civilization and from all human companionship save, ordinarily, that of one helper who not infrequently is an Indian, and to live for weeks at a time in the unbroken forest, seldom sleeping more than a single night in one place.

The woodsman and his one companion must carry cooking utensils, axes, raw provisions of flour, meat, beans, coffee, sugar, rice, pepper, and salt; maps, plats, books for field notes; the simplest and lightest possible equipment of surveying implements; and, lastly, tent and blankets for shelter and covering at night to protect them from storm and cold.

Incidents of the daily life of these two voluntary reclusionists, as they occurred to the author, and some of the results obtained, will be told to the reader in the pages which are to follow.

Table of Contents.

Chapter		Page
I.	Sowing the Germ That I Knew Not.	13
II.	Preparations for the Wilds of Wisconsin.	15
III.	Entering the Wilds of Wisconsin.	18
IV.	Surveying and Selecting Government Timber Lands.	22
V.	Gaining Experience—Getting Wet.	28
VI.	A Birthday Supper.	33
VII.	A New Contract—Obstacles.	40
VIII.	A Few Experiences in the New and More Prosperous Field.	47
IX.	Tracing Gentlemen Timber Thieves—Getting Wet—Fawn.	56
X.	Does It Pay to Rest on Sunday?	63
XI.	Indian Traits—Dog Team.	69
XII.	Wolves—Log Riding.	73
XIII.	Entering Minnesota, the New Field.	77
XIV.	An Evening Guest—Not Mother's Bread.	94
XV.	A Hurried Round Trip to Minneapolis—Many Incidents.	101
XVI.	The Entire Party Moves to Swan River.	117
XVII.	Methods of Acquiring Government Land—An Abandoned Squaw.	125
XVIII.	United States Land Sale at Duluth—Joe La-Garde.	129
XIX.	Six Hundred Miles in a Birch Canoe.	135
XX.	Effect of Discovery of Iron Ore on Timber Industry.	142
XXI.	Forest Fires.	159
XXII.	White Pine—What of Our Future Supply?	174
XXIII.	Retrospect—Meed of Praise.	178

Illustrations.

George H. Warren. *Frontispiece*

Facing Page

W. S. Patrick. 16

The "V" shaped baker is a valuable part of the cook's outfit. 22

"The almost saucy, yet sociable red squirrel". 28

"I found several families of Indians camping at the end of the portage." 34

"In the Vermilion country, dog trains could sometimes be advantageously used." 40

S. D. Patrick. 44

"There were many waterfalls". 52

"We succeeded in crossing Burnt Side Lake". 58

"We started out with two birch canoes". 64

"The party subsisted well, until it arrived at Ely". 70

"My three companions and I . . . had gone to survey and estimate a tract of pine timber." 74

The journey had to be made with the use of toboggans. 82

"Our camp was established on the shores of Kekekabic Lake". 88

"The memorable fire . . . which swept Hinckley". 94

"The fire . . . destroyed millions of dollars worth of standing pine timber". 102

This illustration kindly loaned by Department of Forestry, State of Minnesota.

"One of the horses balked frequently". 106

"Our camp was made in a fine grove of pig-iron Norway". 112

"These little animals were numerous". 118

"We saw racks in Minnesota made by the Indians". 122

"The roots of the lilies are much relished as a food by the moose." 130

Illustrations—*Continued.*

Facing Page

"We have seen the moose standing out in the bays of the lakes." 136

"White Pine—What of Our Future Supply?" 142

"He motors over the fairly good roads of the northern frontier." 148

"Friends whom he had known in the city who are ready to welcome him." 154

"He camps by the roadside on the shore of a lake". 160

The midday luncheon is welcomed by the automobile tourists. 166

"Here he brings his family and friends to fish". 172

"Prepare their fish just caught for the meal, by the open camp fire." 178

"He continues his journey . . . to the very source of the Mississippi River". 182

THE PIONEER WOODSMAN AS HE IS RELATED TO LUMBERING IN THE NORTHWEST.

By GEORGE HENRY WARREN

CHAPTER I.

Sowing the Germ That I Knew Not.

"This superficial tale is but a preface of her worthy praise."

EARLY environment sometimes paints colors on the canvas of one's later life.

Fifty years ago in western New York, there were thousands of acres of valuable timber. The country was well watered, and, on some of the streams, mills and factories had sprung into existence. On one of these were three sawmills of one upright saw each, and all did custom sawing.

My father was a manufacturer, especially of carriages, wagons, and sleighs. There were no factories then engaged in making spokes, felloes, whiffletrees, bent carriage poles, thills

or shafts, and bent runners for cutters and sleighs. These all had to be made at the shop where the cutter, wagon, or carriage was being built. Consequently the manufacturer was obliged to provide himself with seasoned planks and boards of the various kinds of wood that entered into the construction of each vehicle. Trips were made to the woods to examine trees of birch, maple, oak, ash, beech, hickory, rock elm, butternut, basswood, whitewood, and sometimes hemlock and pine. The timber desired having been selected, the trees were converted into logs which in turn were taken to the custom mill and sawed into such dimensions required, as far as was possible at that period to have done at these rather primitive sawmills. Beyond this the resawing was done at the shop.

Thus, almost unconsciously, at an early age, by reason of the assistance rendered to my father in selecting and securing this manufactured lumber from the tree in the forest to the sawed product of the mill, I became familiar with the names and the textures of many kinds of woods, the knowledge of which stood me in good turn in later years.

CHAPTER II.

Preparations for the Wilds of Wisconsin.

IN the city of Detroit, early in June, 1871, was gathered a group of four veteran woodsmen of the lumbermen's craft, and two raw recruits, one, a student fresh from his father's law office in Bay City, and the other, myself, whose frontier experiences were yet to be gained.

A contract, by William S. Patrick of Bay City, the principal of this group, had been made with Henry W. Sage, of Brooklyn, New York, to select and to secure by purchase from the United States and from the state of Wisconsin, valuable pine lands believed to be located in the wilds of northern Wisconsin. Tents, blankets, axes, extra clothing, cooking utensils, compasses, and other surveying implements were ordered, and soon the party was ready for the start.

At that time no passable roads penetrated the northern woods of Wisconsin from the south. The country to be examined for available pine lands at the commencement of our work was tributary to the head waters of the

Flambeau River. To reach this point in the forest it was thought best to enter the woods from the south shore of Lake Superior. Also, the United States land office controlling a part of this territory, was located at Bayfield, Wisconsin, and at that office must be selected such township plats as would be needed in the examining of lands in that portion of the Bayfield Land District.

The quickest line of transit at that date was by railroad to Chicago, and thence to St. Paul over the Chicago, Milwaukee & St. Paul Railway, crossing the Mississippi River at Prairie du Chien, Wisconsin, to McGregor, Iowa, and thence north to St. Paul. There was no other railroad then completed from Chicago to St. Paul. The only railroad from St. Paul to Lake Superior was the St. Paul and Duluth. From Duluth, passage was taken by steamer to Bayfield. Township plats were here obtained from the government land office. Provisions of pork, flour, beans, coffee, rice, sugar, baking powder, dried apples, pepper and salt, tobacco, etc., for one month's living in the woods for nine men, were bought and put into cloth sacks. Our original number of six men was here augmented by three half-breed Indians of the Bad River Indian Reservation, who were hired as

W. S. Patrick

packers and guides over a trail to be followed to the Flambeau Indian Reservation. A Lake Superior fisherman was then engaged to take the party and its outfit in his sailing boat from Bayfield to the mouth of Montreal River, which is the boundary between Wisconsin and Michigan. The distance was about thirty-five miles.

CHAPTER III.

Entering the Wilds of Wisconsin.

HE party disembarked at a sand beach, but the sailboat drew too much water to permit a close landing. Here it was that the two tenderfeet got their first experience with Lake Superior's cold water, since all were obliged to climb or jump overboard into three feet of the almost icy water, and to carry on heads and shoulders portions of the luggage to the dry land. Here was to begin the first night of my camp life. Dry wood was sought, and camp fires were kindled to be used, first, to dry the wet clothing, and second, to cook the food for the first out-of-door supper.

To avoid mosquitoes, orders were given to prepare beds for the night on the sand beach away from the friendly tall trees that stood near by. One mattress served for the whole party and consisted of as level a strip of the sandy shore as could be selected. Promise of fair weather rendered unnecessary the raising of tents which were made to serve as so much

thickness to keep the body from contact with the sand.

That night the stars shone brightly above the sleepers' faces, the waters of Superior broke gently along the beach, and the tall pines lent their first lullaby to willingly listening ears.

"The waves have a story to tell me,
As I lie on the lonely beach;
Chanting aloft in the pine-tops,
The wind has a lesson to teach;
But the stars sing an anthem of glory
I cannot put into speech.
. . . . . .
They sing of the Mighty Master,
Of the loom His fingers span,
Where a star or a soul is a part of the whole,
And weft in the wondrous plan."

The next morning broke bright and clear, and the sun sent a sheen upon the dimpled waters of old Superior that gave us a touch of regret at the parting of the ways; for the members, one by one, after a well relished breakfast, shouldered their packs and fell into single file behind the Indian guide who led the way to the trail through the woods, forty miles long, to the Flambeau Reservation.

Two days and the morning of the third brought the party, footsore in new boots and eaten by mosquitoes, to the end of the trail. Now, lakes must be crossed, and the Flambeau River navigated for many days. In the Indian

village were many wigwams, occupied by the usually large families of two or three generations of bucks, squaws, children, from the eldest down to the liquid-nosed papoose, and their numerous dogs that never fail to announce the approach of "kitchimokoman," the white man.

Some of the old men were building birch canoes, and many birch crafts of different ages and of previous service were to be seen in the camp. From among them, enough were bought to carry all of the men of the party and their outfits. The last canoe bought was a three-man canoe, which leaked and must be "pitched" before it could be used.

At this point let it be explained that every woodsman, trapper, pioneer, settler, or camper who depends upon a birch canoe for navigation should, and generally does, provide himself with a quantity of commercial resin and a fireproof dish in which to melt it. The resin is then tempered by adding just enough grease to prevent the mixture, when applied to the dry surface of a leaky spot on the canoe, and cooled in the water of the lake or river at the time of using, from cracking by reason of too great hardness. The surface must be dry or the "pitch" will not adhere firmly to the leaky seam or knot in the bark of the canoe. The drying

is quickly done by holding a live ember or firebrand close to the surface of the wet bark.

Mr. Patrick had bought the canoes from different owners and had paid for them all except the leaky three-man canoe. It was the property of a fat squaw of uncertain age. The price agreed upon for this canoe was twenty dollars. Mr. Patrick and the squaw were standing on opposite sides of the canoe as Mr. Patrick took from his pocket a twenty dollar bill to hand her in payment. Just then he discovered that the pan of pitch (resin), which had been previously placed over the live coals, was on fire. He placed the twenty dollar bill on the canoe in front of the squaw, and quickly ran to extinguish the fire in the burning pitch. When he returned to the canoe, the bill had disappeared, and the wise old squaw claimed to know nothing of its whereabouts. A second twenty dollar bill was produced and handed to the squaw, when Mr. Patrick became the owner of a forty dollar birch canoe.

CHAPTER IV.

Surveying and Selecting Government Timber Lands.

OUR party of land surveyors, or "land lookers" as they were often called, being thus supplied with water transports, proceeded in their canoes a short distance down the Flambeau River, where the work of selecting government or state lands timbered with pine trees was to begin.

The questions have been so often asked, "How do you know where you are when in the dense forest away from all roads and trails, and many miles from any human habitation?", "How can you tell one tract of land from another tract?", and "How can you tell what land belongs to the United States and what to the State?", that it seems desirable to try to make these points clear to the reader.

The Continental Congress, through its committee appointed expressly for the work, inaugurated the present system of survey of the public lands in 1784. For the purposes of this explanation it will be sufficient to recite that the system consists of parallel lines six miles apart

The "V" shaped baker is a valuable part of the cook's outfit. (Page 36.)

running north and south, designated as "range lines"; also of other parallel lines, six miles apart running east and west, designated as "township lines". Any six miles square bounded by four of these lines constitutes a "township". The territory within these two range lines and two township lines is subdivided into "sections", each one mile square, by running five parallel lines north and south across the township, each one mile from its nearest parallel line, and, in like manner, by running five other parallel lines east and west across the township from the east range line to the west range line, each line one mile from its nearest parallel line. In this manner, the township is subdivided into thirty-six sections each one mile square. The four township corners are marked by posts, squared at the upper end, and marked on the four sides by the proper letters and figures cut into the four flat faces by "marking irons", each flat surface facing the township for which it is marked.

In addition, one tree in each of the four township corners is blazed (a smooth surface exposed by chopping through the bark into the wood) on the side of the tree facing the stake, and the same letters and figures as are on the nearest face of the stake are marked thereon.

These letters and figures give the number of the township, range and section touching that corner. On another blaze below the first, and near the ground, are marked the letters "B T", meaning "bearing tree".

The surveyor writes in his field book the kind and diameter of tree, the distance and direction of each bearing tree from the corner post, and these notes of the surveyor are recorded in the United States land office at Washington.

Even if the stake and three of the bearing trees should be destroyed, so that but one tree be left, with a copy of the notes, one could relocate the township corner.

The section corners within the township are marked in a similar manner.

Midway between adjacent section corners is located a "quarter.corner", on the line between the two adjacent sections. This is marked by a post blazed flat on opposite sides and marked "¼ S". There are also two "witness trees" or bearing trees marked ¼ S.

By running straight lines through a section, east and west and north and south, connecting the quarter corners, the section of six hundred and forty acres may be divided into four quarter sections of one hundred and sixty acres

each. These may in turn be divided into four similar shaped quarters of forty acres each called "forties", which constitute the smallest regular government subdivisions, except fractional acreages caused by lakes and rivers which may cut out part of what might otherwise have been a forty. In such cases the government surveyor "meanders" or measures the winding courses, and the fractional forties thus measured are marked with the number of acres each contains. Each is called a "lot" and is given a number. These lots are noted and numbered on the surveyor's map or plat which is later recorded.

The subdivision of the mile square section is the work of the land looker, as the government ceases its work when the exterior lines are run.

On the township plat which one buys at the local United States land office, are designated by some character, the lands belonging to the United States, and, by a different character, the lands owned by the State.

The country presented an unbroken forest of the various kinds of trees and underbrush indigenous to this northern climate. The deer, bear, lynx, porcupine, and wolf were the rightful and principal occupants. Crossing occasionally, the trail of the first named, served

only to remind us of our complete isolation from the outside, busy world.

The provisions yet remaining were sufficient to feed our party for less than three weeks. In the meantime two of the Indians had gone down the river in a canoe with Mr. Patrick to the mouth of the Flambeau, to await the arrival of fresh supplies which he was to send up to that point from Eau Claire by team. The experienced and skilled woodsmen had divided the working force into small crews, which began subdividing the sections within the townships where there were government or state lands, to ascertain whether there were any forty acre tracts that contained enough valuable pine to make the land profitable to purchase at the land offices. Two thousand acres were thus selected during the first cruise, but, on our agent reaching the land office where the lands had to be entered, only twelve hundred acres were still vacant (unentered), other land lookers having preceded our representative and arrived first at the land office with eight hundred acres of the same descriptions as our own.

As there were many land lookers at this time in the woods, all anxious to buy the good pine

lands from the government and the state, conflicts like the above were not unusual.

Through a misunderstanding of orders, our working party, now nearly out of everything to eat, assembled at The Forks, a point forty-five miles above the mouth of the Flambeau, and waited for the Indians to bring up fresh supplies. They did not come, and, after waiting three days, while each man subsisted on rations of three small baking powder biscuits per day, all hands pushed down to the mouth of the river where the Indians were awaiting us with plenty of raw materials, some of which were soon converted into cooked food of which all partook most heartily.

Corrected plats, showing the unentered lands of each township which we were directed to examine, were sent to us.

CHAPTER V.

Gaining Experience—Getting Wet.

SOME field experience which I had acquired in surveying when a sophomore in college, assisted me greatly in quickly learning how to subdivide the sections, while my knowledge of timber gained at an early age, when assisting my father in choosing trees in the forest suitable for his uses as a manufacturer, aided me greatly in judging the quality and quantity of the pine timber growing in the greater forests of the Northwest.

Freshly equipped with provisions, and with plats corrected up to date, we returned to the deep woods. There we divided into parties of only two—the land looker and his assistant. The latter's duty was chiefly to help carry the supplies of uncooked foods, blankets, tent, etc., to pitch tent at night, and, ordinarily, to do the most of the cooking, though seldom all of it. On some days much good vacant (unentered) pine was found, and on other days none at all. Several miles of woods were at times laboriously passed through, without seeing any tim-

"The almost saucy, yet sociable red squirrel". (Page 48.)

ber worth entering (buying). Some portions would consist of hardwood ridges of maple, oak, elm; some of poplar, birch, basswood; others of long stretches of tamarack and spruce swamps, sections of which would be almost without wooded growth, so marshy and wet that the moss-covered bottom would scarcely support our weight, encumbered as we always were by pack sacks upon our backs, which weighed when starting as much as sixty pounds and sometimes more. Their weight diminished daily as we cooked and ate from our store which they contained.

Windfalls—places where cyclones or hurricanes had passed—were sometimes encountered. The cyclones left the trees twisted and broken, their trunks and branches pointing in various directions; the hurricanes generally left the trees tipped partly or entirely to the ground, their roots turned up and their trunks pointing quite uniformly in the same relative direction. The getting through, over, under, and *beyond* these places, which vary from a few rods to a possible mile across, especially in winter when the mantle of snow hides the pitfalls and screens the rotten trunks and limbs from view, tries the courage, patience, and endurance of the woodsman. All of the time he must use

his compass and keep his true direction as well as measure the distance, otherwise he would not know where he was located. Without this knowledge his work could not proceed.

Sometimes we would come to a natural meadow grown up with alders, around the borders of which stood much young poplar. A stream of water flowed through the meadow, and the beavers had discovered that it was eminently fitted, if not designed, for their necessities. Accordingly, they had selected an advantageous spot where nature had kindly thrown up a bank of earth on each side and drawn the ends down comparatively near to the stream. Small trees were near by, and these they had cut down, and then cut into such lengths as were right, in their judgment, for constructing a water-tight dam across the narrow channel between the two opposite banks of earth. The flow of water being thus checked by the beaver dam, the water set back and overflowed the meadow to its remotest confines, and even submerged some of the trunks of the trees to perhaps a depth of two feet. Out further in the meadow and amongst the alders where had flowed the natural stream, the water in the pond was much deeper.

These ponds sometimes lay directly across

the line of our survey and inconvenienced us greatly. We disliked to make "offsets" in our lines and thus go around the dam, for the traveling in such places was usually very slow and tedious. The saving of time is always important to the land hunter, since he must carry his provisions, and wishes to accomplish all that is possible before the last day's rations are reached. It was not strange, then, if we first tried the depth of the water in the pond by wading and feeling our way. While we could keep our pack sacks from becoming wet, we continued to wade toward the opposite shore, meantime remembering or keeping in sight some object on the opposite shore, in the direct course we must travel, which we had located by means of our compass before entering the water. Sometimes a retreat had to be made by reason of too great depth of water. During the summer months we did not mind simply getting wet clothes by wading; but once in the fall just before ice had formed, this chilly proposition of wading across, was undertaken voluntarily, and was only one of many uncomfortable things that entered into the woodsman's life.

Subjected thus to much inconvenience and discomfort by those valuable little animals, we

could but admire their wisdom in choosing places for their subaqueous homes. They feed upon the bark of the alder, the poplar, the birch, and of some other trees. These grew where they constructed their dam and along the margin of the pond of water thus formed. They cut down these trees by gnawing entirely around their trunks, then they cut off branches and sections of the trunks of the trees, and drew them into their houses under the ice. Most trees cut by the beaver are of small diameter. I once measured one beaver stump and found it to be fourteen inches in diameter. I still have in my possession a section of a white cedar stump measuring seventeen inches in circumference that had been gnawed off by beavers. It is the only cedar tree I have ever known to have been cut down by these wise little creatures.

CHAPTER VI.

A Birthday Supper.

LAMBEAU Farm was located on the right bank of Chippewa River opposite the mouth of Flambeau River. There old man Butler kept a ranch for the especial accommodation of lumbermen and land hunters, who included nearly everyone who came that way. It was at the end of the wagon road leading from Chippewa Falls and from other civilized places. Canoes, dugouts, batteaus—all started from Butler's ranch at Flambeau Farm for operations up the Flambeau and its tributaries, or for either up or down the Chippewa and its branches.

One rainy afternoon in October our party of three started from Butler's ranch in a dugout (a long, narrow canoe hewn out of a pine tree), to pole down the Chippewa River to the mouth of Jump River, a distance of about ten miles. Notwithstanding the rain, everything went smoothly for the first hour, when, without warning, the bow of the canoe struck the edge of a sand bar which caused the tottlish craft to tip. The man in the stern jumped overboard to save it from capsizing, expecting to strike his

feet on the sand bar, but, in the meantime, the frail craft had drifted away from the bar, and we were floating over deep water which resulted in our comrade's disappearing under the surface. He soon rose hatless, and with a few strokes swam to where he seized the stern of the boat to which he was obliged to cling until we could paddle to the shore, as any attempt on his part to have climbed in would have resulted in capsizing the boat, and would have cost us all of our supplies.

We built a fire, and partly dried his wet garments, after which we proceeded on our journey. Entering the mouth of Jump River, we flushed a small flock of wild geese, one of which we shot and gathered into our dugout. A little farther on, we were fortunate in bringing down a fine mallard. By this time the snow had begun to fall very rapidly, so that when we had reached a suitable place to camp for the night, the snow was fully three inches deep. Here, near the bank of the river, we found an unoccupied claim shanty built of logs, and containing a very serviceable fireplace. We took possession of it for the night, in consequence of which it was unnecessary to pitch our tents. We began the usual preparations for our evening meal and for comfortable beds upon which to lie.

"I found several families of Indians camping at the end of the portage." (Page 106.)

The latter were soon prepared by going outside into a thicket of balsam fir trees, felling a few with our axes, and breaking off the soft, springy boughs which were stacked in bunches, carried into camp, and spread in the convenient bunks to constitute the mattresses over which the blankets were later laid.

While thus busy, an Indian hunter clad in a buckskin suit came down the trail by the river bank, bringing with him a saddle of venison. Owing to the Indian's natural fondness for pork, it was very easy to exchange a small piece of the latter for some nice venison steaks. I remember that because of the wet condition of the snow, the Indian's buckskin pants had become saturated with water, causing them to elongate to such an extent that he was literally walking on the bottom ends of them. His wigwam was not far down the river, to which point he soon repaired. Then the cook made a short calculation of the menu he would serve us for our supper after the very disagreeable experiences of travel during the day. He decided to broil the mallard and cook some venison steak. Besides this, he boiled rice, some potatoes, some dried peaches, and baked a few tins of baking powder biscuits.

The land hunter's or surveyor's outfit of

cooking utensils invariably includes a nest of tin pails or kettles of different sizes fitted one within the other, and sufficient in number to supply the needs of the camp; also a tin baker, so constructed that when set up before an open fire, it is a tilted "V" shaped trough of sufficient length to place within it a good sized baking tin, placed horizontally and supported midway between the two sides of the "V" shaped baker, so that the fire is reflected on the bright tin equally above the baking pan and below it.

The snow had ceased falling, and, by building a rousing camp fire outside of the claim shanty, we were soon able to dry our clothing. Having partaken of a sumptuous meal, we "rolled in", contented and happy, for a night's rest. To me, this 14th day of October was a red letter day, and in memory ever since has been because it was the birthday of my then fiancé, who, not many years subsequent, became and ever since has remained my faithful and loving wife.

The second and final trip of that season in open water was made several weeks later when we again poled up the Chippewa River in a dugout, taking with us our supplies for the cruise in the forest.

The current in that part of the river was so

swift, not infrequently forming rapids, that we were obliged always to use long poles made from small spruce trees from which the bark had been removed, and an iron spike fastened at one end to aid in securing a hold when pushed down among the rocks. The water was so nearly at the freezing point that small flakes of ice were floating, and the atmosphere was so cold, that, as the pole was lifted from the water, ice would form on it unless the pole at each stroke was reversed, thus allowing the film of ice formed on the pole to be thawed when immersed in the slightly warmer water beneath. The day spent in this manner was attended with very great discomfort, and when night came, each man found himself tired and hungry, and glad that the day had come to an end. We camped that night at a French-Canadian logging camp. Our party was too fatigued to pitch its own tents and prepare its own meal, and gladly accepted the foreman's hospitality at the rate of two dollars a day each, for some of his fat pork, pea soup, and fairly good bread.

On the morning following, we found the ice had so formed in the river that further journeying in the dugout was impossible, so the latter was pulled up on shore, covered with some brush, and abandoned, at least for the winter,

and, as it proved in this instance, for always, so far as it concerned our party. We finished this cruise on foot, and returned about two weeks later to Eau Claire.

There were not many men living on government lands in that part of Wisconsin. Those who had taken claims and were living on them depended on their rifles for all of their fresh meat. Some of them made a practice of placing "set guns" pointing across deer trails. One end of a strong cord was first fastened to a tree, or to a stake driven into the ground some distance from the deer trail. The cord was then carried across the trail which was in the snow, for a distance of one hundred feet or less. Here, the gun was set firmly, pointing directly in line with the cord or string. The barrel of the gun was sighted at such an elevation as to send the bullet, when fired, across the deer trail at a height from the trail sufficient to penetrate the body of the deer. The string was then carried around some stationary object and fastened to the trigger of the gun, the hammer of which had been raised. The pressure of the deer's body or legs against the string would be pretty sure to discharge the gun, thus causing the innocent and unsuspecting deer to shoot itself.

While running a compass line one day, we discovered, just ahead of us, a cord or string at right angles to our line of travel. I stopped immediately, while my companion, Tom Carney, followed the cord to its end which he found fastened to the trigger of a rifle. He carefully cut the cord, raised the rifle to his shoulder, and fired it into the air. He next broke the gun over the roots of a tree. Further examination showed that the cord was stretched across a deer trail which we would have reached in a minute more.

With the return of winter the Sage-Patrick contract was about completed.

CHAPTER VII.

A New Contract—Obstacles.

"To him who in the love of Nature holds
Communion with her visible forms, she
speaks
A various language; for his gayer hours
She has a voice of gladness, and a smile
And eloquence of beauty, and she glides
Into his darker musings, with a mild
And healing sympathy, that steals away
Their sharpness, ere he is aware."

MY life, up to the time of my contract with Mr. Patrick to go with him into the wilds of Wisconsin as an apprenticed land hunter and timber examiner, had been spent on the farm, in my father's shop, at school and college, and in teaching. The change of occupation and manner of living will therefore be seen to have been radical. In six months of contact with nature, I had been born into a new life, a life of initiative, of daring, and of hardships, insuring health and inspiring hope of financial success in a way honorable and helpful. I loved the forms of nature all about me, untouched by the hand of man. I therefore sought for and found an associate with capital sufficient to permit me to continue in the same line of work. The late Robert B.

"In the Vermilion country, dog trains could sometimes be advantageously used." (Page 130.)

Langdon then became my partner, and this relationship was most pleasantly continued to the end of Mr. Langdon's life.

Late in December, 1871, my first trip under the new contract for securing pine timber, was undertaken. The ice in the rivers and lakes had now become firm and safe for travel thereon. Considerable snow had already fallen, and the roads were heavy in consequence.

Our work, as planned, lay many miles up the Chippewa River. In order to reach the desired locality with sufficient supplies to enable us to be gone a month or six weeks, it was necessary to take them on a toboggan made expressly for the uses of this proposed trip. Four men were needed to push and pull the load. After a week of hard labor, our party arrived at the point where the work of surveying the lands was to begin. A place to camp was chosen in the thick woods not far from the river bank, where water would be near by and convenient for the use of the camp. A small, but strong warehouse of logs was first constructed, in which to store the supplies not necessary for immediate use.

Having thus secured the supplies for future use from the reach of any wild beasts roaming

in the forests, we put enough of them into our pack sacks to last for a ten days' absence from our storehouse camp. We were about to start, when Abbot, one of our axmen, in chopping a stick of wood, had the misfortune to send the sharp blade of the ax into his foot, deep to the bone. The gash was an ugly one and at once disabled him for further usefulness on this trip. The man must be taken out of the woods where his foot could receive proper care. How was this to be accomplished? Two men alone could possibly have hauled him on the toboggan. The distance to the nearest habitation where a team of horses could be obtained was seventy-five miles. There was but one tent in the outfit and not sufficient blankets to permit of dividing our party of four men. It seemed, therefore, that there was nothing possible to do but for the whole party to retrace its steps to the point where it had been obliged to leave the team behind. The wound in Abbot's foot was cleansed and some balsam having been gathered from the fir trees, the same was laid on a clean piece of white cotton cloth, which, used as a bandage, was placed over the wound and made secure. The wound having been thus protected, Abbot was placed on the toboggan

and hauled to the ranch seventy-five miles down the river.

Cruising in the woods is always expensive, even when everything moves on smoothly and without accident. The men's wages are the highest paid for common labor, while the wages of compassmen are much more. The wages of the man of experience and knowledge sufficient to conduct a survey, as well as to judge correctly of the quality and quantity of timber on each subdivision of land selected for purchase, are from seven dollars to ten dollars a day. He must determine the feasibility of bringing the pine logs to water sufficient to float them when cut, and the best and shortest routes for the logging roads to reach the banks of the rivers, or possibly the lakes where the logs are unloaded; and, in these modern days of building logging railroads, he must also locate the lines of the railroads and determine their grades. At the time above alluded to, no logging railroads were in existence, and that part of the expense did not have to be borne. The trip proved to be a very expensive one, and there had not been time before the accident to choose one forty-acre tract of land for entry.

After arriving at Eau Claire where the land office was located, and being delayed some

days by other business, we found on going to the land office, that many entries had just been made of lands within the townships in which we had planned to do our work, when the accident to Abbot occurred. This fact necessitated the choosing of other townships in which to go to search for vacant lands on our next trip.

Having acquired from the land office the necessary plats, and having secured a new stock of provisions, we started again to penetrate another part of the pine woods. This trip occupied several weeks in which we were more than ordinarily successful in finding desirable lands, and we hastened to Eau Claire in order that we might secure these by purchase at the land office.

Rumors had been afloat for some time previous, that there were irregularities in the conduct of the office at Eau Claire. These rumors had grown until action was taken by the general land office at Washington, resulting in the temporary closing of the Eau Claire land office for the purpose, as reported, of examining the books of that office.

Many crews of men came out of the woods in the days that followed, with minutes or descriptions of lands which they desired to enter, each in turn to find the land office closed

S. D. Patrick

against them. In this dilemma, advice was taken as to what course to pursue. After having taken counsel, I, as well as several others, sent my minutes, together with the necessary cash, to the general land office at Washington, with application to have the same entered for patents. Our minutes and our money, however, were returned to us from Washington with the information that the entry could not be thus made, and that public notice would be given of the future day when the land office at Eau Claire would reopen for the transaction of the government's business. All land hunters of the Eau Claire district were therefore obliged to suspend operations until the time of the reopening of the land office. This occurred on the first of May following.

I was there early and in line to enter the office when its doors should be open at nine o'clock in the morning, and reached the desk simultaneously with the first few to arrive. All were told that in due time, possibly later in that day, they could call for their duplicate receipts of such lands as they were able to secure. There was present that morning, a man by the name of Gilmore, from Washington, who, so far as my knowledge goes, had never before been seen at the Eau Claire land office. My

descriptions which I had applied for at the land office on that morning had all been entered by the man from Washington, resulting in the loss of all of my work from January until May. I was not alone in this unlooked for experience, as I was informed by others that they had shared the same fate.

Thus baffled, and believing that there was no prospect of fair treatment in that land office district, I determined to change my seat of operations and to go into some other district. I did so, going next onto the waters of the Wisconsin River, the United States land office for which district, was then located at Stevens Point. Here I remained for many months, operating with a good degree of success, and found the land office most honorably and fairly conducted for all.

The registrar of the land office was Horace Alban, and the receiver was David Quaw. It was always a pleasure to do business with these two gentlemen.

CHAPTER VIII.

A Few Experiences in the New and More Prosperous Field.

THE life of the land hunter is at nearly all times a strenuous one. He daily experiences hardships such as working his way up rivers with many swift waters, and crossing lakes in birch-bark canoes, in wind storms and in rain; fording streams when he has no boat and when the banks are too far apart to make a temporary bridge by felling trees across the channel; building rafts to cross rivers and lakes; climbing through windfalls; crossing miles of swamp where the bog bottom will scarcely support his weight, and where, when night overtakes him he must temporize a bed of poles on which to lay his weary body to protect it from the wet beneath him; and traveling sometimes all day in an open and burnt country with his bed and board upon his back, the sun's hot rays pressing like a heavy weight upon his head, while myriads of black flies swarm about him and attack every exposed inch of his skin, even penetrating through the hair of his head. These are a few of his experiences, and, if these had

not their offsets at certain times, his life would become indeed unbearable. His health, however, and his appetite are generally as good as are enjoyed by any class of the human family. Possessing these advantages gives him much buoyancy of spirit, and, when a good piece of country in the timber is encountered, he is quick to forget the trials and the hardships of the hour before, and to enjoy the improved prospects.

There is doubt whether or not anything finer enters into the joy of living than being in the solitude of the great unbroken forest, surrounded by magnificent, tall, straight, beautiful pine trees, on a day when the sun is casting shadows through their waving tops, listening to the whisperings, formed almost into words, of the needle-like fingers of their leafy boughs, to the warbling of the songsters, and to the chirping of the almost saucy, yet sociable red squirrel who is sure to let one know that he has invaded his dominion. Such days, with such scenes and emotions, do come in the life of the woodsman, the land hunter, who is alone in the forest, except that if he be at all sentimental, he approaches nearer to the Great Creator than at almost any other time in his life's experiences. Those who have read the

books of John Borroughs, John Muir, or Ernest Thompson Seton, may appreciate somewhat the joy that comes to the woodsman in his solitude, if he be a lover of nature.

Those only, who have been through the experience, can fully realize how anxious the land looker is to secure the descriptions of valuable lands that he has found when out on one of his cruises, for he knows full well that it is probable that he is not the only man who is in the woods at that time, for the same objects as his own. Sometimes, but rarely, two such men may meet in the forest while at their work. When this occurs, it is a courteous meeting, but attended with much concealed embarrassment, for each knows that the other has found him out, and, if either is in possession of a valuable lot of minutes which he hopes to secure when he reaches the land office, he assumes that the other is probably in possession of the same descriptions, or, at least, a part of them. It then becomes a question which one shall outwit or outtravel the other, from that moment, in a race to the land office where his minutes must be entered, and to the victor belong the spoils, which means in this instance, to the one who is first there to apply for the entry of his land descriptions.

While on one of these cruises on a tributary of the Wisconsin River, with one man only for help and companion, I had left my man, Charlie, on the section line with the two pack sacks, while I had gone into the interior of the section, to survey some of its forties, and to make an estimate of the feet of pine timber standing on each forty. It was in midsummer and in a beautiful piece of forest. Thrifty pine trees were growing amongst the hard woods of maple, birch, and rock elm. Having completed my work in the interior of the section, and having returned, as I believed, to a point within a hundred yards of where Charlie was, I gave the woodsman's call, then listened for Charlie's answer, in order that I might go directly to the point whence it should come. On reaching Charlie, I picked up my pack and started following the section line. We had traveled less than a quarter of a mile on the line, when I saw on the ground, a pigeon stripped of its feathers. I picked up the bird and found that its body was warm. Immediately I knew that other land lookers were in the same field and had undoubtedly been resting on that section line at the time I had called for Charlie, and they, hearing our voices, had

hastily picked up their packs and started on their way out.

There was much pine timber in this township that yet belonged to the government and to the state of Wisconsin. I, at this time, had descriptions of more than four thousand acres of these lands which I was anxious to buy. My interest and anxiety, therefore, became intense when I knew that my presence had been discovered by the parties who had so unintentionally left that bird on their trail. There were no railroads in that part of the country at that time, and Stevens Point, the location of the government land office, lay more than sixty-five miles south of where we then were. Twenty-five miles of this distance was mostly through the woods and must be traveled on foot. It was then late in the afternoon and neither party could make progress after dark. The route through the woods led through a swamp, and, upon reaching it, the tracks of two men were plainly to be seen in the moss, and in places in the wet ground. One man wore heavy boots, with the soles well driven with hobnails, which left their imprints in the moist soil. Coming to a trail that led off into a small settlement, we saw the tracks of one of the two men following that trail. The tracks

of the man with the hobnails kept directly on in the course leading to the nearest highway that would take him to Wausau, a thriving lumber town, forty miles distant from Stevens Point. We reached this road at about three o'clock in the afternoon of the next day. We called at the first house approached, and asked the woman if she could give us some bread and milk, and, being answered in the affirmative, we sat down for a rest, and inquired of her if she had seen a woodsman pass. She replied that she had, and that he had left there within an hour of the time of our arrival. The tracks of the boots with the hobnails could be seen occasionally along the road, and, knowing that the stage, the only public conveyance from Wausau to Stevens Point, was not due to leave Wausau for Stevens Point until four o'clock the next morning, we had no further anxiety about overtaking the woodsman who had left there an hour in advance, since we reasoned that he would probably take the stage at its usual hour of leaving, the next day.

From that time on, the journey was leisurely made, and we entered Wausau at a late hour, when most of the laboring community had retired for the night. Having gone to my accustomed hotel, and changed my clothes, I next

"There were many waterfalls". (Page 136.)

walked over to a livery stable and hired a team which I drove to Stevens Point during the night, arriving there in time for breakfast. I then went to the home of the land officer before eating my breakfast, told him that I wished to make some entries that morning, and asked him at what hour the land office would be open; and, seeing that my time agreed with that of the land officer, told him that I would be there promptly at nine o'clock, the legal hour for opening the office. I made entry of the list of lands belonging to the United States government, and was told to return at eleven o'clock to compare the duplicate receipts with my application to enter the lands. While I was thus engaged, the stage from Wausau arrived, and a man came into the land office, wearing a pair of boots with hobnails that looked very much the size of the tracks that I had been previously observing on my way out from the woods to Wausau. He immediately asked for the township plat which represented the lands which I had been so anxious to secure. He began reading the descriptions of the lands he wished to enter, and, as he read them, I heard with much interest, the same descriptions that were in my own list, but there were some that were different. Whenever a description was

read that checked with one in my list, the land officer replied that those lands were entered. This occurred so many times that he soon inquired when the lands had been entered. He was told, "At nine o'clock this morning." In his perplexity he had also read some of the descriptions that belonged to the state of Wisconsin and which had to be purchased at the land office at Madison, the capital of the state.

"Well," he remarked, "this is hard luck, but I may secure my state land descriptions."

I always kept a balance of money with the state treasurer at Madison, with which to pay for lands whenever I should send a list by mail or otherwise, when I did not care to go personally with the descriptions.

The man having left the land office, I repaired immediately to the telegraph office and wired the descriptions of the lands I wished to enter, to the chief clerk of the land office at Madison, authorizing him to draw on my account with the state treasurer, to pay for the same. The train left Stevens Point that afternoon for Madison, and both interested parties were passengers. Arriving at the land office, I found the lands telegraphed for, to have been duly secured.

This instance is given to show by how

slender a thread a matter of great interest sometimes hangs. Had the pigeon not been left on the section line, or had it not been discovered by the competing land hunter, the man with the hobnails in his boots would have been the victor, and his would have been the joy of having won that which he had striven hard to attain.

CHAPTER IX.

Tracing Gentlemen Timber Thieves—Getting Wet—Fawn.

have said that the country tributary to the waters of the Wisconsin River constituted a good field for the selection of valuable government pine-timbered lands. It is equally true that it was a country where the custom had grown among lumbermen to enter a few forties of government land, sufficient at least to make a show of owning a tract of timber on which to conduct a winter's operation of logging, and then to cut the timber from adjacent or near by forty-acre tracts of land yet belonging to the government.

This method of trespassing upon the timber not owned by the operator, but being the property of the United States, was carried on to a greater extent there than in any other section of the state in which I was familiar with the methods and practices of logging pine timber. Many logging jobbers having formed this habit of helping themselves to govern-

ment timber, found it difficult, after the government lands had been entered by private purchase of others than themselves, to discontinue their practice of taking timber that was not their own. Reforms of such habits do not come voluntarily nor easily, as a rule, but generally under some sort of pressure.

In the years following my purchase of considerable tracts of timber on these waters, I found it necessary, annually, to make a trip into the country where our timber lands were situated, to ascertain whether or not there had been near-by logging camps during the preceding winter, and if so, to carefully run out the lines around our own timber, to determine whether or not trespass had been committed on any of them. In many instances I found that this was the fact. One spring I found a very considerable number of the best pine trees cut from the interior of forty acres of excellent timber, so that the selling value of the whole tract was injured far more than the full value of the amount of timber that had been unlawfully cut and hauled away. The trespass had been committed by a man prominent in the community and well-known among the lumbermen of the Wisconsin River. The late Gust Wilson of Wisconsin, a fine man, a lawyer of

much experience in lumber cases in that state, and whose counsel was considered of a high order, was retained to bring suit to recover the value of the timber trespassed. Not only that, but, annoyed at the boldness of the trespass, I wished also to have him prosecuted criminally for theft. Mr. Wilson said in reply to the request, "Now, don't try that. All of those fellows have had 'some of them hams,' and you can't get a jury in all that country that will bring you in a verdict of guilty, no matter how great and strong your evidence may be." There was nothing left to do under Mr. Wilson's advice but to cool off, keep smiling, and collect the best price for the stumpage taken (not stolen), so as to be polite to the gentlemanly wrongdoer.

One spring, accompanied by Mr. W. B. Buckingham, cashier of one of the national banks at Stevens Point, who also owned interests in valuable pine timber lands adjacent to, or near by those in which I owned interests, I went into the countries of the Spirit and Willow Rivers. The snow was melting and the waters nearly filled the banks of the respective streams. Wishing to cross the Spirit River, we found a point where an island occupied the near center of the stream, on which

"We succeeded in crossing Burnt Side Lake". (Page 146.)

was a little standing timber. A tree was felled, the top of which landed on the island. Having crossed on the tree to the island, we felled another tree which reached from the island to the farther shore. It was not large in diameter, and, under the weight of Mr. Buckingham, who first proceeded, it swayed until he lost his balance and fell into the water and was obliged to swim to the opposite shore. I was more fortunate in this instance, and stayed on the tree until I reached the shore.

Swimming in ice water is never found comfortable, and we hurried to a close at hand, deserted logging camp, where, fortunately, we found a large heating stove set up and ready for use, and near by a fine pile of dry wood for the stove, which had been left over from the recent winter's operations of logging. In a few minutes, a rousing fire was made, and, after removing his garments and wringing them as dry as possible, we hung them on lines about the stove and quickly dried them and made them ready for use. This was necessary, as no change of clothing had been provided for this intended short excursion into the woods.

By the time our work was finished, the snow had mostly melted away. The ice was all out

of the rivers, and we found ourselves one morning on the banks of the Tomahawk River, wondering how we were to cross it, if possible, without the delay of constructing a raft sufficiently large to carry us. The tote-road leading to Merrill, which we wished to follow, was on the opposite side of the Tomahawk from where we approached it. We finally discovered an old birch canoe hidden in the brush. It was leaky and in very bad repair, so we set ourselves to work gathering pitch from the ends of a pile of freshly cut pine logs lying on the bank of the river, banked there to be pushed into the stream by the log drivers. This we put into a dish with a little grease and boiled until it was of the right consistency to stick to the bark of the canoe. Patches of cloth were laid over the riven places in the bark, and pitched until the boat was made waterproof—for temporary use at least.

With our small belongings, we got into the canoe and started down the Tomahawk, intending to stay in it as long as it would hold together and take us on our journey, saving us that much walking. Unfortunately, however, for us, we soon came to a long strip of rapids with which we were not familiar. Selecting what we believed to be the best water,

we permitted the frail craft to float into the rapids, and our fast journey down stream had begun almost before we realized the fact. All went well until nearly to the lower end of the rapids, when the old canoe struck a sharp rock slightly hidden under the water, and split in two. Partly by swimming and partly by wading, we reached the coveted shore, wetter and wiser than when an hour before we had taken an old canoe that was not our own, in which to cross the stream, instead of spending considerably more time to construct a raft on which we could safely and with dry clothes, have reached the opposite shore. The usual woodsman's process of drying clothes was again gone through with, since it was too cold, at that season of the year, to travel all day in our wet garments.

One early summer day while traveling through a part of this same country, watered by the Willow River, my companion and I stopped in a majestic forest of towering white pine trees, interspersed with the more spreading hemlocks. It was nearing twelve o'clock, and we were both hungry. While my companion was collecting wood for a fire, I went in search of water with which to make a pail of hot coffee. Returning, I climbed over a

large hemlock tree that had fallen, probably, from old age. There, nestled in the moss and leaves, lay a spotted fawn. It made no effort to get up and run from me, so I carefully approached it and gently caressed it. Then I lifted the handsome little creature, with its great, trusting brown eyes, into my arms, and carried it near to our camp fire. While my helper was preparing dinner, I fondled this beautiful infant of the forest that yet knew no fear. I sweetened some water to which I added just a sprinkle of meal, then fed it from a spoon to this confiding baby animal. After this, when I moved, the trusting little creature followed me. When it came time for us to resume our work I carried my little newly found friend back to the spot where its mother had probably left it and put it down in its mossy, leafy bed, and, carefully climbing over the log, left it to be better cared for than it was possible for me to do.

CHAPTER X.

Does It Pay to Rest on Sunday?

"With what a feeling deep
Does Nature speak to us! Oh, how divine
The flame that glows on her eternal shrine!
What knowledge can we reap
From her great pages if we read aright!
Through her God shows His wisdom and His might."

T was in the summer of 1872, while I was at the United States land office at Bayfield, Wisconsin, and was having some township plats corrected previous to going into the woods in that district to hunt for pine timber, that John Buffalo, chief of the Red Cliff band of Chippewa Indians, a friend of the United States land officers, made his quiet appearance at the land office. I had asked where I could find a reliable, trustworthy, and capable man to accompany me on this cruise, planned to cover a period of not less than two weeks. Captain Wing, receiver of the land office, asked the Indian chief, "John, wouldn't you like to earn a little money by going into the woods to help this man for a couple of weeks or more?" To this the chief gave his consent with the usual Indian "Ugh."

During that day provisions were bought and placed in individual cloth sacks. A strong rowboat was secured and the journey begun. Camp was made the first night on one of the Apostle Islands in Lake Superior. The day following, our destination was reached at the mouth of the Cranberry River, where our boat was carefully cached.

It rained for several days, in consequence of which the underbrush was wet most of the time, and in passing through it we became wet to the skin. Before leaving home I had bought for use on the trip what I believed to be a fine pair of corduroy trousers. They looked well, and the brush did not cling to them, a desirable condition when traveling through thickets often encountered in the woods. It rained the first day that we were out. At night we pitched our tent, prepared the evening meal, and at an early hour retired. On retiring, it is usually the custom for men camping, to remove their outer garments and put them out of the way at one side of the tent. Both were very tired and soon fell asleep. I was awakened by a very disagreeable odor within the tent and walked out into the fresh air. Returning, I lay down and remained thus until early daylight, experiencing only a disturbed sleep during the

"We started out with two birch canoes". (Page 148.)

night. My feeling was that I had chosen an undesirable bedfellow, and, as later developments proved, it would have been reasonable if the Indian chief had arrived at the same conclusion.

During the next day it again rained. After the rain the sun came out bright and warm, causing a rapid evaporation to take place on our wet garments. It was under these circumstances that the discovery was made that the very disagreeable odor experienced during the preceding night was again present, and was emanating from the wet coloring matter that had been used in the manufacture of the corduroy trousers. The best possible defense—which I felt it was necessary to make—was to call attention to the fact that the strong odor was coming forth from the corduroy cloth. On reaching camp that evening, the new corduroys were hung out on the limb of a tree where they were last seen by our small camping party.

It is not customary for land hunters to work less on Sunday than on other days, for the principal reason that all of their provisions must be carried with them on their backs, and, that by resting on Sunday, the provisions would disappear as rapidly, or more so, than they would if work continued on that day.

However, toward the end of our trip which had been a very successful one in point of finding desirable government timber lands to enter, we decided that we would rest on the next day, which was Sunday, just previous to our taking our boat to make our return trip on Lake Superior waters to the land office at Bayfield. As a precaution, lest other land lookers should discover our presence, our camping ground was selected in the interior of the section. We had eaten our dinner, and were enjoying a siesta when we heard voices. Listening, we heard men discussing the most direct line to take to reach their boat, hidden somewhere on the shore of the lake. Time sufficient was given to allow them to get so far in our advance, that any movement on our part would not be heard by them. Soon, thereafter, we packed our tent and all of our belongings and started for our boat. We did not reach it until nine o'clock the following morning. We were then forty-five miles from Bayfield by water.

Soon after we had rowed out into the lake, a northeasterly wind began to blow and did not cease blowing during the entire day. The sandstone bluffs around that portion of the south shore of Lake Superior in many places are nearly vertical and rise to very consider-

able heights, preventing any possible way of escape from the water's edge for miles in extent. It was with the greatest effort that we, pulling with all our might, could keep the boat out into the lake, so powerful was the wind, and so increasingly great were the waves. Besides, it was not possible to take a rest from our labors for, the moment we ceased rowing, our boat began rapidly drifting toward the rocks on the south shore. Thus we labored until near the middle of the afternoon, when we got under cover of the first of the friendly Apostle Islands. After resting awhile, before dark we were able to reach the Red Cliff Indian Agency, where we spent the night at the chief's wigwam.

The next morning early, we resumed our boat and rowed into Bayfield, arriving in time to be present at the opening of the land office. With much anxiety, I made application to enter the vacant lands that had been selected on this trip, fearing that the men whom we had overheard talking in the woods two days before, might have arrived in advance of me and have secured at least a part of the same descriptions. With great satisfaction, however, I found the lands to be still vacant, and

all of the minutes chosen while on this strenuous cruise, I bought.

A little before noon of this same day, two well-known land hunters from Chippewa Falls came in, in their boat, off the lake, and, on going to the land office, applied to enter nearly all of the lands which I had secured a few hours before.

The moralist might point with justification to the fact that had we not rested on Sunday, more than likely we should not have known of the presence of any competitors in the field, and should not, therefore, have worked so many long hours in our boat on that windy day, nor should we likely have reached the land office in advance of the two men who arrived there only a few hours later than ourselves.

"By the shores of Gitche Gumee,
By the shining Big-Sea-Water,
Stood the wigwam of Nokomis,
Daughter of the Moon, Nokomis.
Dark behind it rose the forest,
Rose the black and gloomy pine-trees,
Rose the firs with cones upon them;
Bright before it beat the water,
Beat the clear and sunny water,
Beat the shining Big-Sea-Water."

CHAPTER XI.

Indian Traits—Dog Team.

CHIEF JOHN BUFFALO was a superior Indian, always pleasant, companionable, and willing to do a full day's work. He seemed to prefer the society of the white men, and therefore spent much of his time with them. The Indian grows to manhood schooled in superstition. I recall that during the first long trip from the mouth of Montreal River to the Flambeau Reservation, and thence to the mouth of the Flambeau River, on one evening the party camped near by a natural meadow where the grass had ripened and was dry. Our three Indians went out with their knives, to gather armfuls of the grass to spread in our tents to soften our beds for the night. While thus engaged, Antoine, one of the Indians, encountered a blow-snake. This reptile, when defending itself, emits an odor which is sickening, but among white men is not considered very dangerous. There was no question but that Antoine was made sick for that evening by the snake, which had not touched him but had been very near to him. Ed and Frank,

the other two Indians of the party, told us that evening that it was too bad, for Antoine surely would die within the year as a result of his having gotten this odor from the blow-snake. Two years subsequently, I landed at Bayfield from a Lake Superior steamer, and one of the first persons I met on the dock was Antoine, who looked as hale and hearty and well as he was before his experience with the blow-snake. On congratulating him for his victory over the dire calamity predicted, because of his encounter two years previous with the blow-snake, he was considerably embarrassed, but made no explanation why he was yet alive.

During the first half of the seventies, there was no railroad to the shores of Lake Superior in Bayfield County. In January, 1876, it was necessary for me to reach Bayfield on important business. A very poor road had been cut through the woods from Old Superior to Bayfield, crossing the streams running north into Lake Superior. United States mail was carried on toboggans drawn by dogs, and conducted by Indian runners.

The snow was deep, and no trail was broken on the morning that I arrived at Superior hoping to secure some kind of conveyance to take me through to Bayfield, but I found no

"The party subsisted well, until it arrived at Ely". (Page 150.)

one who would volunteer to make the journey. In this dilemma I sought the owners of dog teams, and succeeded in purchasing two rather small dogs that were young and full of life, as well as well trained. These I hitched to a toboggan and started on my journey of ninety-five miles to Bayfield. The morning was mostly gone when the start was made, and that night was spent in a small cabin on the Brule River. The cabin had been erected for the use of the Indian mail carriers, and was unoccupied. It contained a stove, however, and wood was handy outside. The next morning an early start was made, and our train reached Bayfield, as I remember, about one o'clock in the afternoon.

The return journey was made by the same route. I had become acquainted with the smart dog team, so that the return journey was rather enjoyable than otherwise. I took advantage of the down grades to get a little rest by throwing myself flat upon the toboggan, dismounting as soon as the up grades were reached. I had become greatly attached to the dogs, therefore I put them in the express car, on my return from Duluth, and brought them with me to Minneapolis. The thought to do this was prompted by thinking of the

little daughter at home, then two and one-half years old, and of her baby brother, yet in arms. A suitable sled was at once ordered made, with a seat for little sister. To the sled, the dogs were harnessed abreast, and the dogs and child were never happier than when out on the streets for exercise.

There were only two miles of street car track in Minneapolis at that time, and that little track was remote from the family home. The city was then small. Passing teams on the streets were infrequent, so that it was perfectly safe for her to be out in her tiny conveyance, accompanied always either by her father or by her admiring uncle.

CHAPTER XII.

Wolves—Log Riding.

MANY experiences of meeting or seeing the more dangerous of the wild animals have been related by men whose occupation as woodsmen has made it necessary at times to go for days, unaccompanied into the woods, and miles distant from any human habitation. Personal experience leads me to believe that man is safe, nearly always, except when such animals are suffering from hunger.

Early one spring, while the snow was yet deep in the woods, I was scaling some trespass of timber that lay about three miles away from my headquarters camp. In going to my work, mornings, I passed along a trail near to which, in the deep snow, was the carcass of a horse which had belonged to the owner of a near-by lumber camp. I noticed, one morning, that it had been visited during the night by a pack of wolves that had fed upon it and had gone away, using the trail for a short distance and then leaving it, their tracks disappearing into the unbroken forest. The following morning, having gotten an early start, on passing this

same place, I saw the wolves leaving their feeding place and disappearing by the same route as the tracks indicated on the preceding morning. The animals seemed to be as anxious to get out of my sight, as I was willing to have them. Had it not been for their full stomachs, their actions, likely, would have been different.

Returning, on a subsequent day just before nightfall, tired from a long day's work, and, probably, because of the late hour, thinking of my near by neighbors, the wolves, I committed an act that came near costing me my life. The ice had gone out of the streams, and the spring drive of logs was at its height. To reach camp by the usual way, it was necessary to follow up the stream one mile and cross on a dam that had been constructed by the lumbermen to hold back water to use in driving logs out of this stream, which at this point was about two hundred and fifty feet wide. The gates were open, and the water was running high within the banks of the stream. Seeing, in the eddy close to the bank of the river, a large log that would scale at least one thousand feet board measure, I was seized with the idea that I could, with the assistance of a pole, step onto that log, push it out from shore, and guide it across the stream to the opposite shore. It

"My three companions and I . . . had gone to survey and estimate a tract of pine timber." (Page 150.)

was a log that had been skidded to the bank of the river and rolled in. On such logs, the bark on the under side is always removed to reduce the amount of friction produced by one end of the log dragging, while it is being hauled to the water's edge. The "log driver" belongs to a class of men that has produced many heroes, and some of their exploits are among the most thrilling recorded among the exigencies of a hazardous occupation. I never was of that class, and was almost entirely without experience in trying to ride logs in open water. I had pushed the log out into the stream some distance and all was lovely, as every minute it was approaching nearer to the opposite shore. Suddenly it entered the current of the river which quickly revolved the log under my feet, bringing the peeled side uppermost, at which instance I was dropped into the stream. The first thing I did on rising to the surface, was to swim for my hat, which had been pulled off as I sank under the water. Having secured it, I commenced swimming for the opposite shore. My clothing was heavy and grew more so as it became soaked with water, so that by the time I had attained the further shore—in the meantime watching constantly to see that no floating log bumped me,

thereby rendering me unconscious—I was nearly exhausted.

During these years from 1871 to 1874, the woods of Wisconsin were thoroughly traveled over by land hunters, and nearly all of the desirable timber was entered at the respective land offices, so that there remained no further field for exploit. A new field was therefore looked for, and this I found in Minnesota.

CHAPTER XIII.

Entering Minnesota, the New Field.

IN the summer of 1874, I went to the head waters of the Big Fork River with a party of hardy frontiersmen, in search of a section of country which was as yet unsurveyed by the United States government, and which should contain a valuable body of pine timber. Having found such a tract of land, we made arrangements through the surveyor-general's office, then located in St. Paul, to have the land surveyed. The contract for the survey was let by the United States government to Mr. Fendall G. Winston of Minneapolis.

The logging operations on the Mississippi River in Minnesota at this period extended from a short distance above Princeton on the Rum River, one of the tributaries of the Mississippi River, to a little above Grand Rapids. To reach Grand Rapids from Minneapolis, the traveled route was by way of the St. Paul and Duluth railroad to Northern Pacific Junction, thence, over the Northern Pacific Railroad, west to Aitkin. From this point the steamboat

Pokegama plied the Mississippi to Grand Rapids, the head of navigation at that time. For many years this steamboat was owned and operated by Captain Houghton, almost wholly in the interest of the lumber trade. Later, Captain Fred W. Bonnes became its owner. Subsequently, the old Pokegama burned, when Captain Bonnes built a new boat, using the machinery of the Pokegama, and naming it Aitkin City. At a still later period he built the larger steamer, Andy Gibson.

In those days, the lumber-jack was a very interesting type of man. Men from Maine and New Brunswick were numerous. Scotchmen, Irish-Americans, and French-Canadians constituted a considerable portion of all the labor that went to the logging camps of Minnesota. As early as the month of July, they began their exodus from Minneapolis to the woods for the purpose of building new camps, cutting the wild grass that grew along the natural meadows, and making it into hay for the winter's use for oxen and horses. Some of these men worked at the sawmills in summer, but there was not employment for all at this work, and many spent their time in idleness and not infrequently in drunken carousal. On leaving the city for the logging camps, they

were pretty sure to start out, each with one or two bottles of whiskey stored away in his tussock, which was ordinarily a two bushel, seamless sack, with a piece of small rope tied from one of its lower corners to the upper end of the sack. In this were placed all of the lumber-jack's belongings, except what were carried in his pockets, including one or two additional bottles of whiskey. Not all of the lumber-jacks drank whiskey, but this was the habit of very many of them. By the time the train had arrived at Northern Pacific Junction, where a change of cars was made, and where the arrival of the Northern Pacific train from Duluth, west bound, was awaited, many of our lumber-jacks were well under the influence of John Barleycorn. Disputes would frequently arise while waiting for the train. These would be settled by fist fights between the disputants, their comrades standing about to see that each man had fair play.

On one of our trips to the pine forests north of Grand Rapids, we arrived at Aitkin on a train loaded with this class of men, as well as their bosses, and proprietors of the lumber camps. Aitkin at that time was not much more than a railroad station for the transfer of the lumbermen and merchandise to the

steamboat. A few men had preempted lands from the government and had made their homes where now is the city of Aitkin. The late Warren Potter was one of them. He kept a large store which was well stocked with lumbermen's supplies, and which was the rendezvous for the lumbermen. His preemption claim was only a short distance in the woods from his store. He had been East to buy goods and had returned by train that day. He found that his preemption claim had been "jumped" by one, Nat Tibbetts, whom he found occupying the Potter cabin. An altercation took place between the two men, resulting in Tibbetts blacking Potter's eye. The only representative of the law was a justice of the peace, a man whose name was Williams. Before him, Potter swore out a warrant for the arrest of Tibbetts, charging Tibbetts with assault with intent to do bodily harm. Potter asked me to act as his attorney to prosecute his case. This honor was politely declined, and I assured him that he would find a better man for the occasion in the person of S. S. Brown, the well-known log jobber, who was in town.

Mr. Brown having consented to act in the interest of Mr. Potter, and Mr. Tibbetts having secured some other layman to defend his case,

all parties repaired, as I remember, to an unoccupied building which was temporarily used as a court of justice. As almost the entire community that evening was a floating population of lumbermen of various sorts, waiting for an opportunity to start up the river on the steamboat the following day, it will readily be seen by the reader that this occasion was one of unusual interest and bade fair to furnish an interesting entertainment for a part of the long evening.

Tibbetts demanded a jury trial. The jury was chosen, and the prosecution opened the case by putting on the stand, a witness who had seen the encounter, and who proved to be a good witness for Mr. Potter. The case proceeded until the evidence was nearly all presented. At this juncture, in the back end of the improvised court room, a tall lumber-jack who was leaning against the wall, and who was considerably the worse for whiskey, cried out, "Your honor! your honor! I object to these proceedings." Everything was still for a moment, and all eyes turned toward the half drunk lumber-jack. Justice Williams attempted to proceed, when the lumber-jack repeated his calls and his demands to be heard. Every one present knew that any attempt on the part of

the constable to quiet this man would have resulted in starting a general fight, where there were so many who were under the influence of liquor. Some one, therefore, said to the justice, "Your honor, you had better hear the man's objections." Justice Williams then said, "You may state your objections, sir." The lumberjack replied, "I object, your honor, because that jury has not been sworn." This was true. The jury was then sworn, and the trial of the case was begun anew. The witnesses having again given their evidence under oath, the case was soon argued by the improvised lawyers. The justice gave a short charge to the jury, and, without leaving their seats, and while the spectators waited, they notified the justice that they had agreed upon a verdict of guilty. The justice fined Mr. Tibbetts one dollar, and this frontier court of justice adjourned.

The question of the ownership of the claim was not before the court. My recollection, however, concerning it, is that Mr. Potter ever after had peaceful possession of the land.

The ride up the Mississippi to Grand Rapids on the steamer Pokegama, which tied up each night, occupied two days and a half. The distance was one hundred and ninety-five miles. The steamer was crowded, and men slept

The journey had to be made with the use of toboggans. (Page 150.)

everywhere on the deck, on their blankets or without them, as best fitted their condition. Whiskey and cards were plentiful. The table was well supplied with good things to eat. Grand Rapids at that time consisted of a steamboat landing, a warehouse, and a ranch or stopping place kept by Low Seavey, whose wife was a half-breed. These were on the left bank of the river just below the falls or rapids. On the opposite side of the river was a small store, a new enterprise, and owned by a man whose name was Knox.

I met Mr. Winston and his assistant surveyors at Grand Rapids about the middle of August. There were no roads leading into the country that we were to survey, and, as our work would extend nearly through the winter, it was necessary to get our supplies in sufficient quantity to last for our entire campaign, and take them near to our work. This was accomplished by taking them in canoes and boats of various sorts. Our first water route took us up the Mississippi River, into Lake Winnibigoshish, and from that lake on its northeasterly shore, we went into Cut-foot Sioux, or Keeskeesdaypon Lake. From this point we were obliged to make a four mile portage into the Big Fork River, crossing the

Winnibigoshish Indian Reservation. From an Indian encampment on this reservation, at the southwest shore of Bow String Lake, we hired some Indians to help pack our supplies across the four mile portage. Before half of our supplies had been carried across the portage, the Indian chief sent word to us by one of his braves, that he wished to see us in council and forbade our moving any more of our supplies until we had counseled with him. Although the surveyors were the agents of the United States government, for the sake of harmony, it was thought best to ascertain at once what was uppermost in the chief's mind.

That evening, a conference was held in the wigwam of the chief. First, the chief filled full of tobacco, a large, very long stemmed pipe, and, having lighted it with a live coal from the fire, took the first whiff of smoke; then immediately passed it to the nearest one of our delegates to his right, and thus the pipe went round, until it came back to the chief, before anything had been said. The chief then began a long recital, telling us that the great father would protect them in their rights to the exclusive use of these lands. The chief said that he was averse neither to the white man using the trail of his people nor to his using the

waters of the rivers or lakes within the boundaries of the reservation, but, if he did so, he must pay tribute. In answer to his speech, the chief surveyor of our party, Fendall G. Winston, replied that he and his men had been sent to survey the lands that belonged to the great father; and, that in order to reach those lands, it was necessary that his people should cross the reservation which the great father had granted to his tribe; nevertheless, that they felt friendly to the Indians; that if they were treated kindly by himself and his tribesmen, they should have an opportunity to give them considerable work for many days, while they were getting their supplies across his country to that of the great father, where they were going to work during the fall and winter; and that they would also make him a present of a sack of flour, some pork, some tea, and some tobacco. He was told, too, that this was not necessary for the great father's men to do, but that they were willing to do it, provided that this should end all claims of every nature of the chief, against any and all of the great father's white men, whom he had sent into that country to do his work. This having been sealed with the chief's emphatic "Ugh," he again lighted the pipe, took the first

whiff of smoke, and passed it around. Each, in token of friendship, did as the chief had already done. This ended the conference, and we were not again questioned as to our rights to pass over this long portage trail, which we continued to use until our supplies were all in.

As nearly as I can now recall, our force was made up of the following men: Fendall G. Winston, in whose name the contract for the survey was issued; Philip B. Winston, brother of Fendall G. Winston; Hdye, a young engineer from the University of Minnesota; Brown, civil engineer from Boston; Coe, from the Troy Polytechnic School of Engineering; Charlie, a half-breed Indian; Franklin, the cook; Jim Flemming, Frank Hoyt, Charlie Berg, Tom Jenkins, George Fenimore, Tom Laughlin, Joe Lyon, Will Brackett, Miller, and myself.

Flemming, poor fellow, was suffering with dysentery when he started on the trip. On reaching Grand Rapids, he was no better, and it was thought best not to take him along to the frontier, so he was allowed to go home. Miller was not of a peace loving disposition, and, having shown this characteristic early, was also allowed to leave the party. It was best that all weaklings and quarrelsome ones

should be left behind, because it was easily foreseen that when winter closed in upon the band of frontiersmen, it would be difficult to reach the outer world, and it would be unpleasant to have any in the party that were not, in some sense, companionable.

Considerable time was consumed in getting all of our supplies to headquarters camp, which consisted of a log cabin. The first misfortune that befell any one of our party came to Frank Hoyt, who one day cut an ugly gash in the calf of his leg with a glancing blow of the ax. The cut required stitching, but there was no surgeon in the party. Will Brackett, the youngest of the party, a brother of George A. Brackett, and a student from the university, volunteered to sew up the wound. This he did with an ordinary needle and a piece of white thread. The patient submitted with fortitude creditable to an Indian. Some plastic salve was put on a cloth and placed over the wound, which resulted in its healing too rapidly. Proud flesh appeared, and then the wisdom of the party was called into requisition, to learn what thing or things available could be applied to destroy it. Goose quill scrapings were suggested, there being a few quills in the possession of the party. Brackett, however, sug-

gested the use of some of the cook's baking powder, because, he argued, there was sufficient alum in it to remove the proud flesh from the wound. "Dr." Brackett was considered authority, and his prescription proved effectual. Hoyt was left to guard the provision camp against possible visits from the Indians, or from bears, which sometimes were known to break in and to carry away provisions.

It is never necessary for surveyors whose work is in the timber, nor for timber hunters, to carry tent poles, because these are easily chosen from among the small trees; yet nine of our party one time in October, with the rain falling fast and cold, found themselves, at the end of the four mile Cut-foot Sioux Portage, on a point of land where there were no poles. All of the timber of every description had been cut down and used by the Indians. The Indian chief and several of his family relations lived on this point. They had built the house of poles and cedar bark, in the shape of a rectangle. Its dimensions on the ground were about twelve by twenty feet; its walls rose to a height of about five feet; and it was covered by a hip roof.

Our party must either obtain shelter under this roof or must get into the canoes and

"Our camp was established on the shores of Kekekabic Lake". (Page 151.)

paddle nearly two miles to find a place where it could pitch its tents. At this juncture the hospitality of the Indians was demonstrated. The chief sent out word that we should come into his dwelling and remain for the night. The proffer was gladly accepted. When we had all assembled, we found within, the chief and his squaw, his daughter and her husband, the hunter, his squaw and two daughters, besides our party of nine, making a total of seventeen human beings within this small enclosure. A small fire occupied a place on the ground at the center of the structure, an ample opening in the roof having been left for the escape of the smoke and live sparks. Indians can always teach their white brothers a lesson of economy in the use of fuel. They build only a small fire, around which, when inside their wigwams, they all gather with their usually naked feet to the fire. It is a physiological fact that when one's extremities are warm, one's bodily sufferings from cold are at their minimum. Our party boiled some rice and made a pail of coffee, without causing any especial inconvenience to our hosts, and, after having satisfied hunger and thirst, the usual camp fire smoke of pipes was indulged in, before planning for any sleep. Our party had

been assigned a portion of the space around the open fire, and our blankets were brought in and spread upon the mats that lay upon the earth floor.

The additional presence of nine Indian dogs has not previously been mentioned. Before morning, however, they were found to be live factors, and should be counted as part of the dwellers within the walls of this single room. They seemed to be nocturnal in habit, and to take an especial delight in crossing and recrossing our feet, or in trying to find especially cozy places between our feet and near to the fire, where they might curl down for their own especial comfort. It was not for us, however, to complain, inasmuch as the hospitality that had been extended was sincere; and it was to be remembered by us that it was in no way any advantage to the Indians to have taken us in for the night. Therefore, we were truly thankful that our copper colored friends had once more demonstrated their feelings of humanity toward their white brothers. They had been subjected to more or less inconvenience by our presence, but in no way did they make this fact manifest by their actions or by their words. The rain continued at intervals during the entire night, and it was with a feel-

ing of real gratitude, as we lay upon the ground, and listened to it, that we thought of the kindly treatment we were receiving from these aborigines. In the morning we offered to pay them money for our accommodations, but this they declined. They did, however, accept some meat and some flour.

While we were crossing the lake, one day, in canoes loaded with supplies of various descriptions, an amusing, yet rather expensive, incident happened in connection with one of the canoes. Its occupants were George Fenimore, a Mainite Yankee, and Joe Lyon, a French-Canadian. Both were good canoemen, but only Fenimore knew how to swim. They had become grouchy over some subject while crossing the lake, and, as they neared the opposite shore from which they had started, in some manner which I have never understood, the canoe was overturned. Little of its contents was permanently lost, except one box of new axes. The water was about eight feet deep under them. Each man grasped an end of the overturned canoe, and clung to it. Then an argument began between the two disgruntled men, about getting to shore. Lyon wanted Fenimore to let go of the canoe and swim ashore; but this, the latter refused to

do. Finally, after considerable loss of time, Joe Lyon, who was nearest to shore, turned his body about, with his face toward the shore, and, letting go of the canoe, went to the bottom of the lake and floundered to gain the shore. He had only to go a short distance before the water became sufficiently shallow for his head to appear, but he was winded, and thoroughly mad. I have always believed that Fenimore purposely overturned the canoe, but if so, he never admitted the fact.

The pine timber lying east of Bow String Lake, and included in the survey of 1874 and 1875, was all tributary to waters running north, into the Big Fork River, which empties into the Rainy River. Levels were run across from Bow String Lake into Cut-foot Sioux River, and considerable fall was found. The distance, nearly all the way, was over a marsh. It was shown that a dam could easily be thrown across from bank to bank of the river at the outlet of Bow String Lake, and by thus slightly raising the water in the lake, plus a little work of cleaning out portions of the distance across the marsh, from Bow String Lake to Cut-foot Sioux, the timber could be driven across and into the waters of the Mississippi River. All of this engineering was before the advent of

logging railroads. However, before the timber was needed for the Minneapolis market, many logging railroads had been built in various localities in the northern woods, and their practical utility had been demonstrated. When the time came for cutting this timber, a logging railroad was constructed to reach it; and over its tracks, the timber was brought out, thus obviating the necessity of empounding the waters of Bow String Lake.

CHAPTER XIV.

An Evening Guest—Not Mother's Bread.

I HAVE previously mentioned the presence of nine dogs at an Indian camp, where members of our party spent a night. One of these animals is deserving of special mention, for the reason that he was a stranger among a strange people, and he was evidently so against his own choice. He had at one time been a fine, large mastiff. His history was never learned in full, but from an account of the animal, gained by questioning the Indians who had him in captivity, it was learned that the dog had belonged at some lumber camp. It often happens that the midday meal for most of the men in a large logging crew must be taken out on a sled, usually drawn by a single horse, for a distance of not infrequently three or four miles from the cook's camp. This is the work of the cookee; and, at the logging camp where the mastiff had belonged, the animal had been used instead of a horse, to pull the load of the midday meal out to the men at work. In what manner he

"The memorable fire . . . which swept Hinckley". (Page 160.)

had been left behind when the camp broke in the spring, was not learned.

He was about the size of two or three ordinary Indian dogs, and was correspondingly less sprightly in his movements. He was very poor when members of our party first saw him. Indian dogs never get enough to eat, and this poor fellow with his large frame, had the appearance of not receiving any more for his portion of food than an average Indian dog, if as much. He looked as though he were hungry, and probably was, every day. The particular action that impressed itself upon every member of our party, was this animal's almost human desire for sympathy that he sought from this party of white men, when he and they first met at the Indian camp. He wagged his tail and passed from one member of our party to another, with an expression of unusual joy. He rubbed against us and almost begged to be caressed. Every man of our party pitied him and would gladly have sent him out to the white man's country, had it been at all practicable to have done so.

Later in the fall, I was camped for a single night, some three hundred yards distant from the Indian encampment, on the shore of a lake that I must cross the following morning.

While I was preparing my evening meal, this mastiff made his appearance, wagging his tail, and wishing by his actions to say, "I am glad to see you, and have come to call on you." It is the custom of the land hunter, as well as other frontiersmen, when paddling his canoe across a lake, to throw out a trolling line; and not infrequently, in those northern lakes, a catch of several fish may thus be made. On that day, such had been my experience, and I had in my possession, several fine wall-eyed pike that I intended to take through to the main camp, which I should reach on the following day. I also had a small bag of corn meal, which I sometimes used as a substitute for oatmeal, in cooking a porridge for my own use. While preparing my supper, I took the largest kettle, filled it with water, and placed it over the fire. I then cut into small pieces, a number of the fish, and put them in the kettle to boil. Later I added some corn meal and cooked all together. When it was sufficiently done, I removed one-half of the pail's contents and spread it out on a large piece of birch bark to cool. When it had cooled sufficiently, I invited my welcome guest, the mastiff, to partake of the food. Every mouthful eaten was accompanied by a friendly wag of the animal's

tail. The portion remaining in the pail I hung on a limb, high enough up in the tree to be out of reach. The dog remained about the camp, and when I lay down in my blankets for the night, he curled down at my feet and there remained until morning.

While I was preparing my own breakfast, I took the pail from the tree and placed it over a small fire, that I might give my guest a warm breakfast. I spread out on the same birch bark, all that remained in the pail, and it was eaten to the last morsel by the grateful animal.

Having placed all my belongings in my birch canoe, I pushed out into the lake without the dog, who tried hard to follow, and, as the canoe went farther from the shore, the homesick animal commenced to whine at his loss of companionship. By every means possible to a dumb beast, this dog had expressed his dislike for his enforced environment and his longing to be back with the white man. I could not help but believe that the feelings expressed by this dog were akin to those of many a captive man or woman who had fallen into the hands of the aborigines.

Our frail birch canoes had been abandoned as cold weather approached, and we had settled down to the work of surveying. Sometimes,

however, we came to lakes that must be crossed. This was accomplished by cutting some logs, and making rafts by tying them together with withes. Sometimes these rafts were found insufficiently buoyant to float above water all who got onto them, so that when they were pushed along there were no visible signs of anything that the men were standing on. When on a raft, Hyde was always afraid of falling off, and would invariably sit down upon it. This subjected him to greater discomfort than other members, but as it was of his own choosing, no one raised any objection.

One day, several of the party had gone to the supply camp to bring back some provisions which the cook had asked for. Returning, not by any trail, but directly through the unbroken forest, we found ourselves in a wet tamarack and spruce swamp; and, although we believed we were not far from the camp where we had left the cook in the morning, we were not certain of its exact location. Mr. F. G. Winston said he thought he could reach it in a very short time, and suggested that we remain where we were. He started in what he believed to be the direction of the camp, saying that he would return in a little while. We

waited until the shades of night began to fall; and yet he did not come. Preparations were then made to stay in the swamp all night. The ground was wet all around us, nor could we see far enough to discern any dry land. We commenced cutting down the smaller trees that were like poles, and with these poles, constructed a platform of sufficient dimensions to afford room for four men to lie down. Then another foundation of wet logs was made, on which a fire was kindled, and by the fire, we baked our bread and fried some bacon, which constituted our evening meal. A sack of flour was opened, a small place within it hollowed out, a little water poured in, and the flour mixed with the water until a dough was formed. Each man was told to provide himself with a chip large enough on which to lay the piece of dough, which was rolled out by hand, made flat, and then, having been placed in a nearly upright position against the chip in front of the fire, was baked on one side; then turned over and baked on the other. In the meantime, each man was told to provide himself with a forked stick, which he should cut with his jackknife, and on it to place his piece of bacon and cook it in front of the fire; thus each man became his own cook and prepared his own meal. There

was no baking powder or other ingredient to leaven the loaf—not even a pinch of salt to flavor it. But the owner of each piece of dough was hungry, and, by eating it immediately after it was baked and before it got cold, it was much better than going without any supper. The following morning, the party resumed its journey, and met Mr. Winston coming out to find it. He had found the cook's camp, but at so late an hour that it was not possible for him to return that night.

CHAPTER XV.

A Hurried Round Trip to Minneapolis—Many Instances.

AFTER leaving Grand Rapids about the middle of August, we saw very few white men for many months following. In October, on our survey, local attraction was so strong on part of our work, that it was necessary to use a solar compass. This emergency had not been anticipated; it, therefore, became necessary to go to Minneapolis to secure that special instrument. Philip B. Winston, afterwards mayor of Minneapolis, and I started in a birch canoe, and in it, made the whole distance from our camp on Bow String Lake to Aitkin, Minnesota, on the Mississippi, the nearest railroad station. We were in Minneapolis but two days, when we returned, catching the steamer at Aitkin, and going up the Mississippi to Grand Rapids, the head of navigation for steamboats.

Captain John Martin of Minneapolis, the well-known lumberman and banker, wished to return with us for his final fishing trip in open water, for that season. He fished successfully for a number of days, and, at the end of each

day, personally prepared and cooked as fine a fish chowder as anyone would ever wish to eat. On the day of his departure, I took the Captain in my canoe, and landed him on the four-mile portage with an Indian escort who was to take him to Grand Rapids, whence he would return by steamer to Aitkin, a station on the line of the Northern Pacific Railroad.

I was left alone in my canoe and must return to camp, crossing the open water of Bow String Lake. On my arrival at the main lake, the wind had increased its velocity, and the white-caps were breaking. I hired an Indian, known as "the hunter," to help me paddle across the lake and up a rapid on a river flowing into Bow String, up and over which it was not possible for one man to push his canoe alone.

The annual payment to the Indians by the United States government was to occur a few days subsequently, at Leach Lake, and the Indians were busy getting ready to leave, to attend the payment. The hunter's people were to start that day, and he seemed to realize when half way across the lake, that, owing to our slow progress, because of the heavy sea, he would be late in returning to his people at camp. He said so, and wished to turn back, but I told him that he must take me above the

"The fire . . . destroyed millions of dollars worth of standing pine timber". (Page 160.)

rapid, which was my principal object in hiring him. After sitting stoically in the bow of the canoe for a few moments, he suddenly turned about, and, drawing his long knife, said in Chippewa, that he must go back. I drew my revolver and told him to get down in the canoe and paddle, and that if he did not, he would get shot. There was no further threat by the Indian, and we made as rapid progress as possible over the rapid, landing my canoe—his own having been trailed to the foot of the rapid. Both stepped ashore. Then he said in Chippewa, "Me bad Chippewa; white man all right"; and bidding me good-by, hurried off to his canoe at the foot of the rapid.

Once more, during the fall of 1874, I had to reckon with this wily Indian, the hunter, as will soon appear in this narrative.

Perhaps the most convenient pack strap used by the woodsman when on an all day's tramp, is one that is commonly known as the Indian pack strap. It consists of a strap of leather about three inches wide and about three feet long, from each end of which, a tapering piece of leather, either sewed or buckled to it, extends finally to a narrow point no wider than a whip-lash. Each of these added narrow strips is from five to six feet in length, so that

the whole strap is about fourteen feet long when straightened out. A blanket or a tent is folded into shape, about four feet by six feet. This is laid on the ground, and the strap is folded double with a spread at the wide part, of about three feet, which is the length of the wide strap. The narrow ends are then drawn straight back over the blanket, across its narrow dimension, leaving the wide strap, which in use becomes the head strap, at the outer edge of the blanket. Then the blanket is folded from each end over the narrow straps, the two ends of which project out and beyond the blanket at the opposite side from the head strap. The articles to be placed within the blanket, which generally consist of small sacks of beans, flour, pork, sugar, coffee, and wearing apparel, and blankets, are then carefully stacked upon the blanket, within the spread of the two narrow lines of the pack strap. When this is done, the blanket is folded over, and the two outer edges are brought as near to the center of the pile of things to be carried within it, as is possible. Then the two tapering ends of the pack strap are brought up and over, to meet the opposite ends of the narrow straps, which, as has been explained, are either sewed to, or buckled onto the wide head strap.

Drawing these ends firmly together puckers the outer edge of the blanket on either side, and draws the blanket completely over the contents piled in the center, and makes, ordinarily, nearly a round bundle. This load, or pack, the man then throws over his shoulder, onto his back, and brings the wide strap across his forehead, or across his breast, or across the top of his head, when he is ready to begin his journey. Before he has traveled long with this load, which weighs ordinarily from fifty to one hundred pounds, according to the ability of the man to bear the burden, he will be found shifting that wide strap to any one of the three positions named, and will have used all of those positions many times before the party as a whole, stops for a moment's rest.

I had taken with me, on going north on this long campaign, an extra fine red leather pack strap that I had had made to order at a Minneapolis harness shop. I had kept it coiled up, and carefully stored in my belongings, waiting for an emergency when the more common straps would no longer be of service. A number of times the Indians had seen this strap and had admired it, and, as it later proved, not always without envy.

One day the strap was missing, and I could

find it, neither by searching, nor by open inquiry of my fellow white men, nor of the Indians, whom I occasionally met. On one occasion, while portaging my canoe to another lake, I found several families of Indians camping at the end of the portage. Among them was the hunter who has been previously mentioned. While stopping a moment for a friendly talk with the Indians, I saw protruding from under the coat of the hunter, nearly two feet of one end of my missing pack strap. I knew it so well that I was sure that it was no other pack strap. Nevertheless, I deliberated slowly what action I should take to recover the strap, not wishing by any possibility to make a mistake. Having surely concluded that the strap was mine, and that the hunter had not come into possession of it honestly—he having previously denied, when questioned, that he knew anything of the whereabouts of the strap—I decided upon a course of action. Going up quietly behind the hunter, and twisting the end of the protruding strap twice around my wrist, and grasping it firmly in my hand, I started with all my might to run with the strap. The effect was to make a temporary top of my friend, the hunter, who whirled about until the other end of the pack strap was released from

"One of the horses balked frequently".
(Page 167.)

his body. It was too good a joke, even for the Indians to remain unmoved, and the majority of them broke into merriment. The hunter at first was disposed to take it seriously but soon looked sheepish and ashamed, and tried to smile with the rest of his tribe, as well as with myself.

Having wound the strap carefully around my own body, and having made sure that the ends did not protrude, I bade my friends, including the hunter, good day, got into my canoe and pushed out into the lake. This proved to be the last time I ever saw the hunter, but it was not the last time that I ever thought of the incident.

In justice to the Indians as compared with white men, I am glad to be able to say, that, after mingling with them more or less for many years, and becoming sufficiently familiar with their language to be able to use it on all necessary occasions, I believe that the Indians are as honest and as honorable as the men with whom they mingle, who have not a copper skin.

Captain Martin was the last white man whom any one of our party saw for four months. Winter closed in on us before the beginning of November. The snow became very deep, so

that it was absolutely necessary to perform all of our work on snowshoes. The winter of 1874 and 1875 is shown to have been the coldest winter in Minnesota, of which there is any record, beginning with 1819 up to, and including, 1913.

The party was mostly composed of men who had had years of experience on the frontier, and who were inured to hardship. With a few, however, the experience was entirely new, and, except that they were looked after by the more hardy, they might have perished. As it was, however, not one man became seriously ill at any time during this severe winter's campaign.

All of the principal men of the party wore light duck suits, made large enough to admit of wearing heavy flannel underwear beneath them. Either boot-packs or buckskin moccasins, inside of which were several pairs of woolen socks, composed the footwear. Boot-packs or larigans, as they are commonly called by the lumber-jack, are tanned in a manner that makes them very susceptible to heat, and the leather will shrivel quickly if near an open fire. It cost one of the party several pairs of boot-packs before he could learn to keep sufficiently far away from the open fire, on returning to camp from his work. It will be sur-

mised by the reader that he was one of the inexperienced of the party.

Many incidents, amusing to others, happened during the winter to this same man. He had started on the trip in the summer months, with a supply of shoe blacking and paper collars. The crossing of one or two portages with his loaded pack sack on his back was sufficient to convince him that there was no need of carrying either shoe blacking or paper collars, and they were thrown out to reduce weight. Each man carried a hank or skein of thread, a paper of needles, and a supply of buttons. Soon after winter set in, this man, who might ordinarily be termed a tenderfoot, complained of lameness in one of his feet. As the weather became more severe, he added from time to time, another pair of socks to those he already had on, never removing any of previous service. This necessitated, not infrequently, his choosing a larger sized boot-pack. Before the campaign was over, although he was a man of low stature and light weight, his feet presented the appearance of being the largest in the party. Still he complained of lameness in the hollow of his foot, and no relief came until March, when the work was completed. Arriving once more back in civilization, he removed

his much accumulated footwear. There, under this accumulation of socks, and against the hollow of his foot, was found his skein of thread, the absence of which, from its usual place, had necessitated his borrowing, whenever he had need of it, from some one of his companions. Before starting out on this campaign, he had been one of the tidiest of men about his personal appearance.

One evening in midwinter, when sitting around the camp fire, by reason of the pile of wood for the evening being largely composed of dry balsam, we were kept more or less busy, extinguishing sparks that are always thrown out from this kind of wood when burning. Sometimes one would light on the side of the tent near by, and unless immediately extinguished, would eat a large hole in the cloth. That evening, Fendall G. Winston and I were sitting side by side, when we saw a live spark more than a quarter of an inch in diameter light in the ear of our friend who sat a little way from, and in front of us. It did not go out immediately, neither did it disturb the tranquillity of the young man. Mr. Winston and I exchanged glances and smilingly watched the ember slowly die. The time to clean up had not yet arrived for at least one of the party.

The compassman's work that winter was rendered very laborious from the fact that his occupation made it necessary for him, from morning until night of every day, to break his own path through the untrodden snow, for it was he who was locating the line of the survey. I was all of the time running lines in the interior of the sections, following the work of the surveyors, and choosing desirable pine timber that was found within each section. I had no companion in this work, and thus was separated most of each day from other members of the party, but returned to the same camp at night.

In the morning, each man was furnished by the cook, with a cloth sack in which were placed one or two or more biscuits, containing within, slices of fried bacon and sometimes slices of corned beef, also, perhaps, a doughnut or two. This he tied to the belt of his jacket on his back and carried until the lunch hour. Ordinarily a small fire was then kindled, and the luncheon, which generally was frozen, thawed out and eaten. Under such mode of living, every one returned at night bringing an appetite of ample dimensions.

One of the most acceptable of foods to such men at the supper hour was bean soup, of a

kind and quality such as a cook on the frontier, alone, knows how to prepare. Plenty of good bread was always in abundance at such time. Usually there was also either corned beef or boiled pork to be had by those who wished it; generally also boiled rice or apple dumplings, besides tea and coffee.

In a well-regulated camp, where men are living entirely out of doors in tents, a bean hole is pretty sure to be demanded. The bean hole is prepared by first digging a hole in the ground, sufficiently large, not only to make room for the pail, but also for several inches of live coals with which it must be surrounded. After supper is over, the beans are put into a large pail made of the best material, with ears always riveted on, so that the action of heat will not separate any of its parts. The beans are first parboiled with a pinch of soda in the water. As soon as the skins of the beans become broken, the water is poured off; then the beans are placed in the bean pail, a small quantity of hot water is added together with a sufficiently large piece of pork; and, when a tight cover has been put on the pail, it is placed in the bean hole. The live coals are placed around it, until the hole is completely filled and the pail entirely covered several inches deep. Then

"Our camp was made in a fine grove of pig-iron Norway". (Page 167.)

ashes or earth are put on the top of it all, to exclude the air. Thus the pail remains all night, and, in the morning when the cook calls the men to breakfast, the beans, thoroughly cooked and steaming, are served hot and furnish an acceptable foundation for the arduous day's work about to begin.

The work of the frontiersman is more or less hazardous in its nature, and yet bad accidents are rare. Occasionally a man is struck by a falling limb, or he may be cut by the glancing blow of an ax, though he learns to be very careful when using tools, well knowing that there is no surgeon or hospital near at hand. Sometimes in the early winter, men unaccompanied, yet obliged to travel alone, drop through the treacherous ice and are drowned. Few winters pass in a lumber country where instances of this kind do not occur. One day, when alone, I came near enough to such an experience. I was obliged to cross a lake, known to have air holes probably caused by warm springs. The ice was covered by a heavy layer of snow, consequently I wore snowshoes, and before starting to cross, cut a long, stout pole. Taking this firmly in my hands, I made my way out onto the ice. All went well until I was near the opposite shore, when suddenly the bottom

went out from under me and I fell into the water, through an unseen air hole which the snow covered. The pole I carried was sufficient in length to reach the firm ice on either side, which alone enabled me, after much labor, impeded as I was by the cumbersome snowshoes, to gain the surface. The next absolutely necessary thing to do, was to make a fire as quickly as possible, before I should become benumbed by my wet garments.

The survey went steadily on, the snow and cold increased, and rarely was it possible to make an advance of more than four miles in a day. Frank Hoyt remained at the warehouse and watched the supplies which were steadily diminishing. One day, Philip B. Winston, two men of the crew, and I, set out to the supply camp to bring some provisions to the cook's camp. The first day at nightfall, we reached an Indian wigwam that we knew of, situated in a grove of hardwood timber, near the shore of a lake, directly on our route to the supply camp. Our little party stayed with the Indians and shared their hospitality. It was a large wigwam, covered principally with cedar bark, and there was an additional smaller wigwam so close to it, that a passage way was made from one wigwam to the other.

In the smaller wigwam lived a young Indian, his squaw, and the squaw's mother; in the larger wigwam lived the chief, his wife, his daughter, son-in-law, and the hunter, his wife, and two daughters, all of whom were present except the hunter. There was an air of expectancy noticeable as we sat on the mats around the fire in the wigwam, after having made some coffee and eaten our supper outside. Presently the chief informed us that an heir was looked for that evening in the adjoining tent. Before nine o'clock it was announced that a young warrior had made his appearance, and all were happy over his arrival. The large pipe was brought forth, filled with tobacco, and, after the chief had taken the first smoke, it was passed around to their guests, and all the men smoked, as well as the married women.

The next morning, we continued our journey across the lake and on to Hoyt's camp, where, it is needless to say, he was glad to see some white men. Their visits were rare at his camp. Filling our packs with things the cook had ordered, we started on our return journey, arriving at the Indian camp at nightfall. As we left the ice to go up to the wigwams, we met the mother of the young warrior who had made his first appearance the preced-

ing night, going down to the lake with a pail in each hand to bring some water to her wigwam. The healthy young child was brought into the wigwam and shown to the members of our party, who complimented the young mother and wished that he might grow to be a brave, worthy to be chieftain of their tribe.

That evening a feast had been prepared at the chief's wigwam, in honor of the birth of the child, to which our party was invited. The menu consisted principally of boiled rice, boiled muskrat, and boiled rabbit. The three principal foods having been cooked in one kettle and at the same time, it was served as one course, but the guests were invited to repeat the course as often as they desired. This invitation was accepted by some, while others seemed satisfied to take the course but once. I have always found the hospitality of the Chippewa Indian unsurpassed, and more than once, in my frontier experiences, I have found that hospitality a godsend to me and to my party.

CHAPTER XVI.

The Entire Party Moves to Swan River.

IT WAS in the month of February, 1875, when the surveying party completed its work east of Bow String Lake, and finished, one afternoon, closing its last lines on the Third Guide Meridian. At the camp, that afternoon, preparations were being made for a general move of considerable distance. It is not always possible for the frontiersman to reach his goal on the day that he has planned to do so. An instance in point occurred next day, when our surveying party was moving out to Grand Rapids. The snow was deep and the weather intensely cold when we broke camp that morning, hoping before nightfall to reach one of Hill Lawrence's logging camps. Some Indians had been hired to help pack out our belongings. Our course lay directly through the unbroken forest, without trail or blazed line, and the right direction was kept only by the constant use of the compass. All were on snowshoes, and those of the party who could be depended upon to correctly use the compass, took turns

in breaking road. Each compassman would break the way through the snow for half an hour, then another would step in and break the way for another half hour, and he in turn would be succeeded by a third compassman. This change of leadership was continued all the way during that day.

About the middle of the afternoon, the Indians threw down their packs and left our party altogether, having become tired of their jobs. This necessitated dividing up the Indians' packs and each man sufficiently able-bodied taking a part of these abandoned loads in addition to his own pack; and thus we continued the journey.

Night was fast approaching, and the distance was too great to reach the Lawrence camp that night. Fortunately, there were some Indian wigwams not far in advance. These we reached after nightfall, and, as our party was very tired and carried no prepared food, we asked for shelter during the night, with the Indians. They soon made places where our men could spread their blankets around the small fire in the center of the wigwams. Then we asked if we could be served with something to eat. We received an affirmative "Ugh," and the squaws commenced

"These little animals were numerous".
(Page 169.)

preparing food, which consisted solely of a boiled rabbit stew with a little wild rice. It was once more demonstrated that hunger is a good cook. After having partaken of the unselfishly proffered food, and, after most of our party had smoked their pipes, all lay down about the fire, and fell asleep. Even the presence of Indian dogs, occasionally walking over us in the night, interfered but little with our slumbers. The next morning our party started out without breakfast, and by ten o'clock reached the Lawrence camp, where the cook set out, in a few minutes' time, a great variety of food, and an abundance of it, of which each man partook to his great satisfaction.

From Lawrence camp we were able to secure the services of the tote team that was going out for supplies, which took our equipment through to Grand Rapids. From that point, we were able, also, to hire a team to take our supplies to the Swan River. Crossing this we went north to survey two townships, which would complete the winter's contract.

It has been stated that this winter of 1874 and 1875 was the coldest of which the Weather Bureau for Minnesota furnishes any history. Besides the intense cold, there were heavy snows. Nevertheless, no serious injury or

physical suffering of long duration befell any member of our band of hardy woodsmen. Not one of our number was yet thirty years old, the youngest one being eighteen. Two only of the party were married, Fendall G. Winston, and myself. On leaving Grand Rapids in August, we separated ourselves from all other white men. The party was as completely separated from the outside world as though it had been aboard a whaling vessel in the Northern Seas. No letters nor communications of any kind reached us after winter set in, until our arrival in Grand Rapids in the month of February following. Letters were occasionally written and kept in readiness to send out by any Indian who might be going to the nearest logging camp, whence they might by chance be carried out to some postoffice. Whether these letters reached their destinations or not, could not be known by the writers as long as they remained on their work, hidden in the forest.

I had left my young wife and infant daughter, not yet a year old, in Minneapolis. Either, or both might have died and been buried before any word could have reached me. It was not possible at all times to keep such thoughts out of my mind. Of course every day was a

busy one, completely filled with the duties of the hour, and the greatest solace was found in believing that all was well even though we could not communicate with each other. As I recall, no ill befell any one of the party nor of the party's dear ones, during all these long weeks and months of separation. Every man of the party seemed to become more rugged and to possess greater endurance as the cold increased. It became the common practice to let the camp fire burn down and die, as we rolled into our blankets to sleep till the morning hour of arising.

Not every night was spent in comfort, however, though ordinarily that was the average experience. The less robust ones, of whom there were very few, sometimes received special attention.

It was during the arduous journey, getting away from the scene of our first survey to that of the upper waters of Swan River, that one of our men fell behind all of the others, on a hard day's tramp. P. B. Winston, who had all the time been very considerate of him, observing that he was not keeping up to the party, but was quite a long way back on the trail which the men were breaking through the snow, said that he would wait for him until he should

catch up. Concealing himself behind a thicket close to the trail, he quietly awaited our friend's arrival. He told the following incident of the poor fellow's condition:

Mr. Winston allowed him to pass him on the trail, unobserved, and heard him saying, as he rubbed one of his legs, "Oh Lord, my God, what ever made me leave my comfortable home and friends, and come out into this wilderness!" At this instant Mr. Winston called out, "What is the matter ————————?" "Oh, I'm freezing, and I don't know that I shall ever be of any use if I ever get out," he replied. He did live to get out and to reach his friends, none the worse for his doleful experience. He did not again, however, go north into the forest, but tried another portion of the western country, where he became very prosperous.

Long living around the open camp fire in the winter months, standing around in the smoke, and accumulating more or less of the odors from foods of various kinds being cooked by the open fire, invariably result in all of one's clothing and all of one's bedding becoming more or less saturated with the smell of the camp. This condition one does not notice while living in it from day to day, but he does not need to be out and away from such environ-

"We saw racks in Minnesota made by the Indians". (Page 172.)

ments for more than a few hours, before he becomes personally conscious, to some degree, that such odors are not of a quality that would constitute a marketable article for cash. On arriving in Minneapolis at the close of the winter's campaign, without having changed our garments—as we had none with us that had not shared with us one and the same fate—Mr. P. B. Winston and I engaged a hack at the railroad station, and drove to our respective homes.

It was Mr. Winston's domicile that was first reached, and it happened, as the driver stopped in front of his house, that his fiancé, Miss Kittie Stevens (the first white child born in Minneapolis), chanced to be passing by. Of course their meeting was unexpected to either, but was a pleasant and joyous one, though somewhat embarrassing to Mr. Winston. The wind was blowing, and I noticed that he took the precaution to keep his own person out of the windward. He had been a soldier in the Confederate Army, and I smiled with much satisfaction as I observed his splendid maneuver.

On meeting me next day, Mr. Winston inquired whether his tactics had been observed, and, being assured that they had, he said that that was the embarrassing moment for him,

for he did not know but that the young lady might have considered that she had just grounds for breaking the engagement. Both of us, however, knew better, for she was a young lady possessed of a large degree of common sense and loveliness. The young people later were married, Mr. Winston becoming mayor of Minneapolis, remaining always, one of its best citizens. Often, afterwards, incidents of that winter's experience, a few of which have been herein recorded, were gone over together with great pleasure by the parties interested.

CHAPTER XVII.

Methods of Acquiring Government Land—An Abandoned Squaw.

FOR many years it was the practice of the United States government, after its lands had been surveyed, to advertise them for sale at public auction on a date fixed by the government. Time sufficient was always given to allow parties interested to go themselves, or send men into the woods, to examine the lands, and thus to be prepared on the day of sale, to bid as high a price on any description as each was willing to pay. After the time advertised for the lands to be thus offered, had expired, and after the land sale had been held, all lands not bought in at that sale became subject to private entry at the local land office. It was this class of lands that I bought in Wisconsin.

After the Civil War, by act of Congress, each Union soldier was given the right to homestead one hundred and sixty acres of land, the government price of which was one dollar and twenty-five cents per acre. It sometimes happened that the soldier found only forty acres,

or possibly eighty acres, or one hundred and twenty acres, lying contiguous, that he cared to take as a homestead. Later, Congress passed another law enabling the soldier, who had thus previously entered fewer than one hundred and sixty acres, to take an additional homestead claim of enough acres, which, when added to his previous homestead, would make a total of one hundred and sixty acres. The soldier was not obliged to live on this additional piece of land, but had the right to sell his certificate or scrip from the government, to anyone who might choose to buy it, and the purchaser, by power of attorney from the soldier, could with this scrip, himself enter the land. This became a common practice, covering a period of several years, and it was with the use of this kind of scrip that very much of the land that was surveyed about the time I have been describing, was entered.

In the following winter—that of 1875 and 1876—I was in the woods of Minnesota west of Cloquet, accompanied by an Indian named Antoine, and, while breaking trail on snowshoes in the deep snow along an obscure road that had been cut through to Grand Rapids, on the Mississippi, I came to a small Indian tepee close by the side of the road. A little smoke

was curling from its peak, and a piece of an old blanket was hanging over its entrance. Calling aloud, I heard a faint voice of a woman answering from within. Entering the wigwam, we found there an impoverished, half-clad, half-frozen, perishing squaw. She told us that her feet had been frozen so that she could not walk, and that her family had left her to die. She had food enough, and possibly fuel enough, to last her about two more days. I was at a loss to know what was the wisest and most humane thing to do. We were far in the woods, and away from every human inhabitant. It was as easy to proceed to Grand Rapids as it was to retrace our steps to Duluth. A decision was soon made, and that was, that we would cut and split, and bring inside the wigwam a large pile of good wood, with plenty of kindling, and would leave the poor woman supplies from our pack sacks, of things most suitable and most convenient for her to use, as whatever she did, must be done on her hands and knees.

Having provided her with a liberal supply of rice, pork, crackers, some flour, sugar, tea, and a package of smoking tobacco—for all squaws smoke—besides melting snow until we had filled an old pail with water, we felt that she

could keep herself alive and comfortable for several days, at least. I then took out of my pack, a new pair of North Star camping blankets, and cutting them in two, left one-half to provide additional warmth for the unfortunate squaw. As is the custom of her people when something much appreciated has been done for one of them, she took my hand and kissed it. Leaving her plenty of matches, we bade her good-by, and resumed our journey toward Grand Rapids.

Once more on the trail, I asked Antoine how old he believed the squaw to be. He said maybe forty; I should have judged her to have been seventy, but no doubt I was mistaken, and the Indian's judgment was far better. Arriving at Grand Rapids, I wrote the authorities at Duluth, and at Fond du Lac Indian Reservation, telling them of the poor woman's situation and where she was located. I afterwards learned that she had been sent for, and brought out by team, and that she had been subsequently taken to her band of Indians.

I have been told by different Indians, that the sick and the aged are sometimes abandoned when the band is very short of provisions, and when to take the helpless with them, would prove a great burden.

CHAPTER XVIII.

United States Land Sale at Duluth—Joe LaGarde.

URING the summer of 1882, the United States government had advertised that it would offer at public auction, many townships of land lying along the border between Minnesota and Canada, in Cook, Lake, St. Louis, and Itasca Counties. This country was difficult to reach. The distance from Duluth to Lake Vermilion was upwards of ninety miles. There was not even a road through the woods, over which a loaded team could be driven. Men were obliged to take their supplies upon their backs and carry them over a trail, all of this distance. From Lake Vermilion, it was possible to work both eastward and westward, by using canoes and making numerous portages from one lake to another, and so on for seventy-five miles in either direction along the boundary. Supplies were soon exhausted, so that it was necessary to keep packers on the trail, bringing in on their backs, fresh supplies from Duluth to Vermilion, where now is located the city of Tower.

In the Vermilion country, dog trains could sometimes be advantageously used.

Estimators of timber were employed either for themselves or for others, in surveying the lands, and in estimating the pine timber in these various townships that were to be offered at public sale in the month of December. This work continued almost to the day when the sale was to begin. That sale was held at the local land office at Duluth, and there were present men interested in the purchase of pine timber, from Maine, Pennsylvania, New York, Michigan, Wisconsin, Minnesota, and some men representing Canadian capital. The competition was vigorous, and Uncle Sam's lands were bid in at a round price.

During the fall of 1882, while preparing for the approaching land sale at Duluth, the only son of William S. Patrick, Simeon D. Patrick, a veteran land examiner in my employ, and I, made a short trip west of Duluth, exploring a section of country south of where now is the station of Cornwall, on the Northern Pacific Railroad. Our packer and handy man who carried part of our supplies, was an Indian of considerable note, by the name of John LaGarde, familiarly known as Joe LaGarde. He was a fine specimen of Chippewa Indian trapper, tall,

"The roots of the lilies are much relished as a food by the moose." (Page 172.)

straight, muscular, and a good burden bearer, but rather averse to long days' work. He was handy about camp, but, being an Indian, and accustomed to lying down at night with his feet close to a few live embers, he did not share with the white man the wish for large piles of wood to last through the cold nights that prevailed during this trip.

It happened that one evening we pitched our tent near a small stream, in a grove composed principally of young birch, but interspersed with large and shaggy ones. Everyone at all familiar with the birch knows there is much of it, on which the outer bark peels naturally, and it is no uncommon thing to be able to peel, with the use of the hands only, large quantities of the bark. There was almost an inexhaustible supply of just such bark near this camping ground. Joe was either tired or indisposed to work that evening, and when bedtime arrived, the pile of wood looked very scant for the long hours of the night. No one likes a little innocent fun better than my friend Patrick. Looking at the small woodpile, then at Joe, Patrick gave me a twinkle of his eye, started out into the semidarkness, and commenced peeling bark off the birch trees. He busied himself thus, until he had peeled off and

brought in near our tent, a huge pile of this beautiful birch bark.

No matter how rainy the weather may be, or how deep the snow in winter, if the frontiersman is fortunate enough to be camped in a grove of live birch, he knows that this ever friendly and useful birch bark will afford him a sure means of kindling a fire. It carries much oil and burns readily when a match is applied to it. The fire was fixed for the night, and Patrick and I lay down in our tent under our blankets to sleep. Joe, as was his custom, curled up at the foot of the tent and left his bare feet sticking out toward the fire. His requirement of blanket was less than half of what would satisfy a white man. As long as his feet were warm, the Indian did not suffer from cold. About midnight the fire had burned very low, when Patrick emerged from the tent and commenced dropping pieces of birch bark on the fast consuming fire logs. I was well back in the tent, propped up a little on my elbows, enjoying the glow of the fire, and watching it, as well as watching the Indian. As the fire increased and the flames rose higher, the Indian's feet began to twitch, and to draw up closer to his body. Soon the heat was so tremendous that the tent was in danger, when,

like a missile, thrown by a strong spring, the Indian shot out of his blanket and into the woods, muttering his imprecations in Chippewa. He did not swear, for praise be to the Chippewa language, it contains no such words; but a madder Indian and a happier white man are seldom seen. The sequel to this episode was plenty of good fuel to burn during all of the following nights of this cruise in the forest.

We employed LaGarde on other and later trips, and his services were always satisfactory. He has since gone to the happy hunting ground, and, with his passing, a tinge of sadness steals over us, for his memory is dear, and we have no right or wish to count him as other than our brother. He was always true to the white man, and deserves his meed of praise.

An account of his death appeared in the Duluth Herald, February 28th, 1911, from which the following summary is gathered:

His age is given in the death certificate, as one hundred years. He was born on the Red Lake Indian Reservation, near Thief River Falls. His mother was a full-blooded Chippewa, and his father a half-breed with a French-Canadian name. In 1834, when about twenty-four years old, he came with his

mother, to the Head of the Lakes, and settled at the historic John Jacob Astor Trading Post, at Fond du Lac. Three years later, while trading at Madeleine Island, near Bayfield, he met Liola Chievier, a half-breed, whom he afterwards married and brought to Fond du Lac. There were seven children to this union, but only three are now living. The youngest, aged fifty-five, lived at Fond du Lac with his father. The other two were located on the White Earth Reservation. They were Moses and Simon. The old man's wife died about thirty-eight years ago. LaGarde lived in Fond du Lac about seventy-seven years. He possessed a remarkable physique. His chest was well developed, his body straight as an arrow, and he stood six feet two inches in height. Being a Chippewa, LaGarde loved peace more than war, and he never took part in any Indian outbreak. As far back as the memory of any white man of the suburb goes, he had a reputation of being honest in all his transactions with the white traders. His body was buried in the Indian burying grounds, at the Fond du Lac Indian Reservation near Cloquet.

CHAPTER XIX.

Six Hundred Miles in a Birch Canoe.

THE following summer, I hired a number of men to pack some supplies from Duluth to the shores of Lake Vermilion. I had with me one white man to assist me in a reestimate of the pine timber that I had bought at the land sale in December. Canoes were purchased of the Indians, and I employed some of them to go as packers and canoemen.

The work first took the party eastward a distance of fifty miles. Not only was the timber reexamined, but the character of the streams was carefully noted, with reference to their feasibility for floating out the timber, whenever the time should come for it to be cut and brought to market. All of that country is very rugged and much broken. The shores of the lakes are bold and rock-bound. Islands exist in nearly all of the lakes, and at that time they were thoroughly wooded, many of them containing fine bunches of pine timber. The country was picturesque and the scenery most enchanting. Aquatic birds of various species

were frequently startled from the water as our canoes came in sight of them. Fish were abundant and could be taken in almost any one of the lakes, by throwing out a line. There were caribou and moose in the country, but no deer at that time.

Bands of Indians were living along these waters, most of them belonging to the United States, but, as we turned and went westward, on the waters of Lake La Croix we met many Canadian Indians. They all spoke the same language, though sometimes with great difference in accent. There were many waterfalls, and around these, in every instance, a portage had to be made of all our supplies and of our canoes. One day's experience was much like that of its predecessor or like that of the one to follow. On the whole, the work was less arduous than that in a country which is mostly land and not cut up by numerous lakes, as is the condition in all of the northern woods in Minnesota. A camping ground would be selected on a shore of a lake, and, from this one camp, it was often our experience that several days' work could be economically accomplished before it was necessary to again move. The timber that we wished to examine often lay on either side of the lake on the shore of which the

"We have seen the moose standing out in the bays of the lakes". (Page 172.)

camping ground had been selected. Thus the work continued until the party reached Rainy Lake. This lake is fifty-five miles long, and at its foot, at that time, on the Canadian side, was Fort Francis. Much of this water route was then known as the Dawson Route. It had been used by the Canadian government to reach the Canadian Northwest with its soldiers, at the time of the Riel Rebellion. The shattered remains of a number of French batteaus were seen on the rapids between different lakes, where an attempt had been made to navigate the waters, which had disastrously failed.

Just below Fort Francis, which is at the beginning of the Rainy River which flows into Lake of the Woods, we found a Canadian farmer. He had been an engineer on board a Canadian steamer that plied from Rat Portage to Fort Francis. When the rebellion was over, and there was no longer use for steamboating, this man determined to take a homestead under the Canadian land laws. This was at the latter end of July. While our party was preparing dinner on the bank of the river at the edge of the settler's meadow, he came down to see us. It was seldom that he saw any of the white race, and, when one chanced to pass by, he was always glad, he said, to see him and

learn something of the outside world. He invited us to go back into his meadow where, he assured us, we should find an abundance of ripe, wild strawberries. This we found to be true, and the berries were indeed a luxury to a lot of men who had been living on nothing better than dried peaches or dried apples, stewed and made into sauce.

The work of examining lands was now completed for this trip, but the easiest way out was to continue down Rainy River into Lake of the Woods, and across Lake of the Woods to Rat Portage, where a train on the Canadian Pacific could be boarded and the journey continued to Winnipeg, and from thence by rail back to Minneapolis. At that time no logs had been driven down the Rainy River to mar the beauty of its shore lines which were the most beautiful of any river I have ever seen in Minnesota or in Canada. In some places for half a mile at a stretch there would be a continuous gravel shore. Its waters were deep and clear.

Near the mouth of Rainy River, our party overtook Colonel Eaton and his helper, a man from Wisconsin, whose name, I believe, was Davis. Colonel Eaton was United States government inspector of lands, and was on a tour

of inspection to ascertain to what extent the land laws relating to homestead entries were being complied with. Each was glad to meet the other, and in company, we traveled from that time until we finally arrived at Rat Portage.

Lake of the Woods is a very large body of water, and not everywhere is it safe to venture out upon it in small boats or canoes. Colonel Eaton had a staunch rowboat. At Rainy Lake I had paid off and dismissed most of my helpers, so that I had but one canoe remaining. This was occupied by myself and the white man, my assistant, whom I had taken at the beginning of the journey. For a considerable distance, the party was able to keep behind the islands and away from the open lake, until it arrived at a point that is known as a traverse, a wide opening between islands, where the westerly winds, if blowing heavily, have a tremendous sweep. Our party found the whitecaps rolling in across this traverse, on the top of waves so high that neither of our crafts could possibly live, if out in them. Here, on this island, we went ashore and made our camp as comfortable as possible while waiting for the wind and waves to subside.

Both parties had been long from home, and

were practically without food to eat. We were obliged to stay on that island three nights and two days before the water had calmed sufficiently for us to cross the traverse. In the meantime, we had eaten the last of our supplies, and were subsisting wholly upon what blueberries we were able to find growing on the island. Some public work was about to begin up the Rainy River, and we had been informed that a steamer from Rat Portage, loaded with various articles of merchandise, was liable to come up the lake to enter the river at almost any time; consequently we were continually on the lookout for the steamer, it being the only source from which we could hope to get anything to eat, before we should arrive at Rat Portage. Finally the steamer was spied on the afternoon of the second day of our unforeseen residence on the island. With towels tied to poles, our party, hoping to be able to signal the passing steamer, went to the shore of the island. It was well out on the lake from our shore, and our hopes began to wane as we saw it steam by us, not having given us any indication that it had seen our signal. Suddenly, however, our fears were turned to hope and joy as we saw its bow turning in our direction. It made a long sweep on account of the high

sea, and came in behind our island where the water was deep, and the nose of the steamer was brought almost to our shore. We quickly told the captain our plight, and asked only that we might purchase of him a little flour and a little meat, a little tea and a little coffee, sufficient to take us to Rat Portage, including a possible longer delay on the island because of the wind that was yet blowing. This he gladly gave us, refusing to accept any compensation; and with grateful hearts, we waved him adieu as the boat resumed its course. The following morning, early, the lake was quite calm; and, after a hasty breakfast, we pulled out from shore, crossed the traverse, and once more got behind the friendly islands. From this time on to Rat Portage, our journey was without special interest, the party returning together by rail to Minneapolis.

CHAPTER XX.

Effect of Discovery of Iron Ore on Timber Industry.

DURING the same year that the United States government offered its lands in the northern counties of Minnesota at public auction, new interests effecting the market for pine timber were created by the discovery of iron ore of a marketable quality, near the south shore of Lake Vermilion, where now is the city of Tower, Minnesota.

Historically, the first mention of iron ore in northern Minnesota dates back to the report of J. G. Norwood, made in 1850, in which he mentioned the occurrence of iron ore at Gunflint Lake, but claimed no commercial importance in his discovery. The Geological and Natural History Survey of Minnesota, Volume 4, page 583, records the following: "H. H. Eames, state geologist of Minnesota in 1865 and 1866, was the first to observe and report iron ore on both the Vermilion and Mesabi ranges, and to consider it of any value. In his report for 1866, he describes the ore outcroppings near the southern shore of Lake Vermilion, and in his

report, published the following year, is an account of the ore at Prairie River Falls, on the western end of the Mesabi, and several analyses showing it to be of good quality."

As early as 1880, Professor A. H. Chester, in the interest of private parties, made a personal examination of the Vermilion Iron Range, and predicted that an iron ore district of immense value and importance would be found to exist on that range. George C. Stone of Duluth, one of the parties who had employed Chester to make the examination for iron ore, was elected a member of the Minnesota legislature, and, through his instrumentality, in 1881, a law was passed, "to encourage mining in this state, by providing a uniform rate for the taxing of mining properties and products." This law provided for a payment of a tax of fifty cents for each ton of copper, and one cent for each ton of iron ore, mined and shipped or disposed of; each ton to be estimated as containing two thousand two hundred and forty pounds. The Duluth and Iron Range Railroad was constructed from Two Harbors, on Lake Superior, to Tower, Minnesota; and in August, 1884, the first shipment of iron ore was made from the Minnesota Mine at Tower.

Promising outcrops of iron ore bearing rocks were found east of Tower, where now is the flourishing town of Ely. Work was begun on these outcrops, resulting in the finding of the Chandler Mine, by Captain John Pengilly, from which, in 1888, the first shipment of iron ore was made, the railroad having been extended from Tower to Ely, for the purpose, primarily, of shipping the iron ore to Two Harbors, and thence to the eastern markets. Other mines were later found in this vicinity. The building and equipping of this railroad created a demand for manufactured lumber, for railroad ties, and for telegraph poles. Sawmills were built at different points along the line of the railroad and at its terminals, so that the years immediately following were busy ones for those dealing in standing timber and its manufactured products.

My associates and I had acquired interests in these localities, so that much of my time for nearly a decade, was actively employed along the line of the Vermilion Range. During these years from 1882 to 1888, the most practical modes of travel, and almost the only ones, were either by birch canoe and portaging from lake to lake in summer, or by dog train during the winter. Sometimes these trips were pleasant

ones, but quite as often they were attended by incidents not always agreeable.

On one of these occasions late in October, accompanied by one white man known only as "Buffalo," I started to travel east from Tower, on Lake Vermilion, along the route followed by the Indians, to the foot of Fall Lake, a distance of forty-five miles. It was some time after noon when we pulled out from shore in our two-man canoe, a small craft, affording just room for two men to sit, and to carry their pack sacks and scant supplies. Soon it began to rain, and the wind commenced blowing. We were approaching an island, when Buffalo, who had had much experience on the Great Lakes as a sailor, insisted that we could not reach our landing at the easterly end of the lake, before dark, without the use of a sail. Arriving at an island, we pulled our canoe ashore, and Buffalo quickly improvised a sail, which was hoisted in the bow of the canoe and the boat was again launched. In this manner we sailed and paddled at a much accelerated speed, but all of the time we were in imminent danger of being capsized, it being my first experience of riding in a birch canoe carrying a sail. Fortune favored the undertaking, however, and we made a safe

landing in time to pitch our tent and make our camp for the night.

During the night the cold increased, and when we arose in the morning, we found that ice had formed on the water in the little bay of the lake. We made a number of portages that day, the cold increasing so that in all of the little bays, ice was forming. We succeeded in crossing Burnt Side Lake and entering the river leading to Long Lake as it was getting dark. We were then six miles from what we knew to be a comfortable ranch near the lower end of Long Lake, which Buffalo strongly urged we should try to reach that night, although to do so meant that we must pass between some islands where, in places, we knew the rocks projected out of the water, and therefore were perilous to our birch canoe. We decided to make the effort, and soon after pushing out from shore, we were only able to faintly discern the outlines of the islands that we must pass. Fortunately, these were soon alongside of us, and we had passed the last dangerous reef of rocks. Then, to our great satisfaction, we saw the light from the lantern which had been hung out on a pile driven close by the outer end of the dock at the foot of the lake, about four miles distant, where the ranch, that

we hoped to reach that night, was located. The wind had died down so that the surface of the lake was comparatively smooth, but we noticed that our mittens, which had become thoroughly wet, were freezing on our hands. For one hour we paddled in silence, when the light toward which we had been steering, became much more visible, and soon we landed at the little dock, thankful that we had made our journey safely. Our appetites were keen for the good, broiled steak and hot potatoes that previous experience had taught us we were pretty sure to receive, and in this we were not disappointed.

The following summer, I passed over this same canoe route under quite different circumstances. My work of examining lands and timber all lay near to the shores of several lakes. My wife's father, J. H. Conkey, and her brother, Frank L. Conkey, had often expressed a wish to see that northern country. Accompanied by them and also by my son, Frank Merton, who was then a boy in short pants, we journeyed by rail to Tower. Before leaving Duluth for Tower, Mose Perrault was added to our number.

Perrault was a fine specimen of man, six feet in height, well-proportioned, of middle age,

and thoroughly familiar with frontier life. At Tower, we started out with two birch canoes, and after dinner, on a pleasant afternoon in August, we pushed our canoes out into the waters of Lake Vermilion, from the same point from which we had left in the rain, the previous October. We reached the east end of Vermilion early, portaged into Mud Lake, went up the river, and camped on the high ground west of Burnt Side Lake, in a pine grove where we were surrounded by blueberry bushes laden with their large, ripe fruit.

Our party was made up of two classes of people; one out to examine timber, the other, to fish and have a good time. While crossing one of the portages, my brother-in-law, Frank L. Conkey, who knew almost nothing about canoeing or portaging, but was willing, and full of hard days' work, picked up two pack sacks, one of which was strapped to his shoulders, and the other was placed on top of his shoulders and the back of his head. Thus burdened, he started across Mud Portage, the footing of which, in places, was very insecure. At an unfortunate moment, he caught his foot in a root and tumbled, the top pack sack shooting over his head and breaking open at its fastenings, thus spilling its contents on the

"White Pine—What of Our Future Supply?" (Page 174.)

"He motors over the fairly good roads of the northern frontier." [Page 180.]

ground. All that could be found of these, were gathered together and replaced in the pack sack, and the journey was resumed. Mose Perrault was the cook, and on arriving at the camping ground at night, he began preparations for making bread and getting the evening meal. The pack sack that had broken open, originally contained two tin cans, one filled with baking powder, and the other, with fresh live worms buried in earth, that had been gathered for bait for the fishing party. Perrault wanted the baking powder with which to leaven the dough. The fishermen wanted their worms with which to bait their hooks. The latter were gratified, but nowhere could the baking powder be found, and we were forced to the conclusion that it was one of the lost articles on the portage. That night and the next day, we lived on bread made without any leaven, which from a number of experiences, I feel competent to state, is never a great success. The fishing, however, was good, and on the portages enough partridges were shot within revolver range to afford plenty of good meat for the party. These we cooked with bacon and dressed with butter, of which we had a goodly supply. There were plenty of crackers and Carolina rice, with blueberries close at

hand for the picking, so that the party subsisted well, until it arrived at Ely, where the three fishermen bade Perrault and me farewell, returning to their homes by railroad train, after a pleasant outing.

In February, 1891, my three companions and I had a very different experience, away east of Ely, where we had gone to survey and estimate a tract of pine timber. The snow was deep, and the journey, which had to be made with the use of toboggans, was a hard one. I had, as my associate and chief timber estimator, S. D. Patrick. In addition were the cook, and Buffalo, a man whose name has appeared on a previous page. This man is worthy of more than passing notice. His true name I never knew. He always said, "Call me 'Buffalo'." He claimed to have been born at Buffalo, New York, and to have spent his childhood and early youth in that city. He was an Irish-American and was possessed of the typical Irish wit on all occasions. He was never angry to the extent of being disagreeable, but he had no patience for any man in the party who refused or neglected to do his full share of the work. He claimed that when a boy, he had earned money at the steamboat landings at Buffalo, by diving under the water for coins

thrown to him by passengers on board the ships at anchor in the harbor, as did also the late Daniel O'Day of the Standard Oil Company. He too, was an Irish-American, born and raised near Buffalo, and at his death left millions of dollars. He once told me that when a youth he had earned many dimes and quarters by diving for them alongside the passenger ships in Buffalo Harbor.

Buffalo was always ready to act promptly and to do, or to undertake to do, anything that was requested of him. On this occasion he had an opportunity to demonstrate these good qualities. The trip was attended with the greatest of hardships, of heavy work, and of exposure to intense cold. Buffalo was a good axman, and not one night did he fail to cut and pile near to the camp, enough wood to last until after breakfast the next morning.

Our camp was established on the shores of Kekekabic Lake, in Township 64 N., Range 7 W., for several days and nights. There were many partridges in this section of the forest. They would come out on the borders of the woods next to the lake. It was possible to shoot one or more nearly every day, so that the camp was supplied with fresh game. The cook and Buffalo remained at the camp, while Mr.

Patrick and I went out each day to examine timber, returning at night. The daylight covered none too many hours, so that we arose early and started on our journey after breakfast, as soon as we could see to travel, in order that the day's work might be accomplished, and the return to camp made before dark. It was not possible to calculate the day's work so as to be sure that we could reach camp before nightfall, but, owing to the intense cold that prevailed at this time, it was only the part of wisdom to plan so as to return to camp while we could yet see where to travel. Nearly every day's work was, in part at least, over a new tract of land, to which a new trail must be broken in the morning as we went out to the work.

One day our work lay directly north of our camp, through the woods, out onto a small lake, and again into the woods. We knew, before leaving camp in the morning, that it would require our best efforts to accomplish the work and to return before nightfall. For this reason, we started at daybreak, and, after having done our best, it was night before we commenced to retrace our steps. The cold had increased all day, so that we were obliged to summon our courage at times, to keep our feet and hands

from freezing. We were only two miles from camp when our return journey began; but two miles in an unbroken wilderness, in deep snow, with the only path to follow being the tracks made by two men passing once over it, is a long distance to travel when daylight has disappeared, and when to leave those tracks at such a temperature, would probably prove fatal.

Within a few minutes from the time of our beginning to retrace our steps, each step was taken by the sense of feeling. We were both clad in moccasins, which made it possible, through the sense of feeling, to distinguish between the unbroken snow and that which had been stepped upon during the morning hours of that day. Being in darkness, we dared not proceed whenever we were not certain that our feet were in the path that we had made on going out to our work. A few times we lost the path. Immediately we stopped, one man standing still, in order that we might not lose our location, while the other felt around until the path was regained. We knew that if we should lose it, the one thing remaining for us would be to walk around a tree, if it were possible to do so, until morning light should appear. We went slowly on, never giving up hope.

It was getting late in the evening, so that Buffalo, at camp, became alarmed for our safety. His wits were at work, and he commenced to build a large fire. Then he found, near by, a dead pine stub. About this he piled kindling until he got it on fire. It is not possible to write words describing the satisfaction and joy with which we two lonely travelers finally spied the illumination, penetrating the dark forest for a short distance only, it is true, yet far enough. Soon we walked into camp, to the joy of all of the party, and there we found an excellent supper awaiting us. Buffalo's big wood pile was in waiting at all the hours of that night, and some one was astir to keep the fire going. It was the only night of my long experience of living in the woods, when it was impossible, for more than a short period, to be comfortable away from the fire, and even then, we each in turn revolved our bodies about the open fire, first warming one side, and then the other, and slept but little.

After our work was completed, and we had gotten back in touch with the civilized world, we were told by residents at Tower, that the thermometer on that night, had indicated from 48° to 52° below zero.

The following summer, on one of my trips to

"Friends whom he had known in the city who are ready to welcome him." (Page 180.)

this then picturesque country in northeastern Minnesota, I tried the experiment of taking my wife, who had long been an invalid, and my son, Frank Merton, then a boy in his early teens, with me, in the hope that the trip would prove beneficial to the wife and mother. The experiment was in no way disappointing, although on one occasion when the rain had poured incessantly, leaving the woods drenched, in crossing a rather blind and unavoidable portage, Mrs. Warren's clothing became thoroughly wet. In the absence of a wardrobe from which to choose a change of garments, the expedient was resorted to of requesting her to remove one garment at a time, which Vincent De Foe, a half-breed, and James O'Neill, an old and trusty friend, held to the open fire, until it was dry. This she replaced, when another wet garment went through the same process, until all had been dried. No ill effects followed; on the contrary, Mrs. Warren's health continued to improve.

At the end of the trip I was so happy over the results that I sent the following account of some of its incidents to Dr. Albert Shaw, then of the Minneapolis Tribune, and at present, editor of the Review of Reviews. This

little account appeared in the Tribune of Saturday, September 6, 1890:

"IN THE WILDS OF MINNESOTA.

Mrs. G. H. Warren's Travels in the Northeastern Part of the State.

Mrs. G. H. Warren and her son Frank returned to the city Monday from a two weeks' tour of the Vermilion Iron Range, north of Lake Superior. Their trip was both interesting and novel. From Ely, the eastern terminus of the Duluth & Iron Range Railroad, they embarked in birch canoes, traversing ten lakes, thirteen portages and three small rivers as far as they were navigable for birch canoes. The whole distance thus traveled included over one hundred miles. Pike, pickerel, bass, white fish, or landlocked salmon abound in all these lakes of rugged shores. Master Frank reports the capture of a twenty-seven inch pike and a thirty-seven inch pickerel. In one of the bays of Basswood Lake—a beautiful body of clear water thirty miles in length and extending several miles into Canada—the Indians were seen gathering wild rice. This is accomplished by the male Indian standing upright in the bow

of his canoe, and paddling it forward through the field of rice, the stalks of which grow from three to four feet above the water; while his squaw sits in the stern of the canoe, and with two round sticks about the size, and half the length of a broom handle, dexterously bends the long heads of the rice over the gunwale of the canoe with one stick, while at the same instant, she strikes the well filled heads a sharp, quick blow with the other, threshing out the kernels of rice, which fall into the middle portion of the canoe. This middle portion is provided, for the occasion, with a cloth apron, into which the rice kernels fall. The apron will hold about two bushels, and is filled in the manner above described in less than three hours' time. The rice is next picked over to free it from chaff and straw, after which it is placed in brass kettles and parched over a slow fire; then it is winnowed, and is ready for future use.

Mrs. Warren is the first white woman to penetrate so far on the frontier of wild North-eastern Minnesota, and though never before subjected to uncivilized life, or the primitive mode of travel, she endured the walks over the portages, slept soundly on beds of balsam fir boughs, ate with a relish the excellent fish and

wild game cooked at the camp fire, and returns to her home in the city with health much improved, and enthusiastic over the many beauties of nature in this yet wild, but attractive portion of Minnesota."

CHAPTER XXI.

Forest Fires.

THE terrible forest fires that swept over much of Wisconsin and Minnesota during the summer of 1894, resulting in such an appalling loss of life at Hinckley and vicinity, will always be remembered by the people living in the northern half of Minnesota.

One who has never been in the forest at a time when the fires within it extended over many miles of area, cannot appreciate the danger and the anxiety of those who are thus placed. I vividly recall two days during the summer of the Peshtigo fire, when I was in the burning woods of Wisconsin. The sun was either entirely obscured, or it hung like a red ball above the earth, now penetrating the clouds of smoke, now again being hidden by them. The smoke came at times in great rolls at the surface of the earth, then was caught up by the breeze and lifted to higher altitudes, and at all times was bewildering to those whom it surrounded.

No one could tell from what point of the compass the distant fire was most dangerous,

nor in what direction it was making most rapid progress toward the point where he was located. At times one became choked by the thick smoke. For many hours, during one of these days, I moved with my face close to the ground, that I might get air sufficient to breathe. When finally I came to an open country where the currents of wind could lift the smoke, I experienced a feeling of the greatest thankfulness that I was delivered from the condition of the two last days, surrounded with so much uncertainty as to my safety.

The memorable fire of September 1st, 1894, which swept Hinckley and all its surrounding country, resulted in the death of four hundred and seventeen human beings, left destitute two thousand two hundred, and extended over an area of four hundred square miles. The financial loss was upwards of one million dollars.

That loss does not include the great losses of timber situated in the northeastern part of Minnesota, extending all along its boundary and reaching into Canada. The fire in northeastern Minnesota destroyed millions of dollars worth of standing pine timber, much of which was entirely consumed, while portions of it were killed at the root. Such timber as was thus killed, but not destroyed, had most

"He camps by the roadside on the shore of a lake". (Page 180.)

of its value yet remaining, provided that it were cut and put in the water, during the first one or two seasons following. Later than that, most of its value would have been destroyed by worms boring into the dead timber. On account of these fires, it was necessary for all timber owners to make a careful examination of all timber lands within the burnt district. For this purpose, accompanied by S. D. Patrick, and E. A. White, timber examiners to assist in the work, and my son, Frank Merton, then a senior in the University of Minnesota, besides packers, I went, in 1897, into the burnt districts in northeastern Minnesota.

As a result of these forest fires, one of the worst pests that the frontiersman meets is the black fly, which flourishes in a burnt country. This little insect is apparently always hungry, is never tired, and wages a relentless fight upon every inch of the white man's epidermis that is exposed to its reach, even penetrating the hair and beard of a man, and leaving the effects of its poisonous bite. So terrible were these little pests, and so numerous were they on two days of the excursion, that one eye of each of three of the white men in the party was so badly swollen by the bites of the insects, that it was closed. No remedy has ever been offered

that effectually protects the woodsman from injuries inflicted by this insect.

While our party was on that expedition that summer, reestimating the timber in the burnt district, Mr. Patrick came close to a large bull moose standing in some thick woods. The animal had not yet discovered Mr. Patrick's presence, consequently he was able to carefully examine and study this great beast of our northern woods. Below the animal's hips, on either side, at a point where he could in no wise protect himself from the ravages of this insect pest, the poor beast's flesh was raw and was bleeding. The Indians claim that their dogs frequently go mad and have to be killed as a result of the bites inflicted by these insects.

In proof of the wide range of their activities I will briefly relate one experience with them in Wisconsin. Joseph McEwen and I left Wausau one morning, riding out behind a livery team twenty miles to the Big Eau Plaine River, in search of desirable cranberry marsh lands. The country we traveled over was flat. Fires had recently killed the timber, and black flies formed one vast colony over this territory.

Our driver had trouble controlling the horses, so fierce was the attack of the black flies upon them. We arrived at the nearest point of our

work that could be reached by team about ten o'clock in the forenoon, and dismissed our driver. We then proceeded on foot into this burnt, marshy country, attacked continuously by swarms of flies. They penetrated our ears, our noses, and our mouths if we opened them. They worked themselves into our hair, up our sleeves, under our collar bands, over the tops of our socks and down into them until they found the end of our drawers where, next, was our naked skin.

We camped at night in the marsh. The next morning the attack was renewed as vigorously as it had been waged on the previous day. At eleven o'clock we stopped for our dinner. McEwen wore a heavy beard all over his face; my face was bare. He looked at me as we were eating our dinner, then dryly remarked, "I don't know how I look, but you look like the devil; the black flies have bitten you everywhere; your face is a fright." We went out to the main road, and secured a conveyance by which we reached Wausau about five o'clock that afternoon.

I went immediately to my accustomed hotel, owned and managed by Charles Winkley. He had known me well for years, and I had left him less than forty-eight hours previous to my

entering on that afternoon. Mr. Winkley was behind his desk. I greeted him and asked him how business was. He answered me quite independently that his house was full, and that he had not a vacant room. I then asked him if there was any mail for me, giving him my full name. He looked at me in astonishment, then exclaimed, "My God! What is the matter of you?" I said, "Black flies." Then he continued, "I mistook you for some man with the small-pox and was planning to notify the authorities and have you cared for. Go right to your room and stay there. Mrs. Winkley will care for you and have your meals brought to you. I will go to the postoffice every day for your mail." My face was one blotch of raw sores. My eyes were nearly closed because of the poison from the black flies.

The best remedy or preventive we have ever found against all insect pests of the northern woods, is smoked bacon rubbed onto the bare skin in generous quantities. Its presence is not essentially disagreeable. Objection to its use is prejudice, since it is no less pleasant than is the oil of cedar or pennyroyal which are often prescribed by druggists for the same purpose, and which are not half as continuous in their efficacy, because a little perspiration will neu-

tralize all of the good effects of the latter named remedies. Soap and water will remove the bacon grease when protection from flying insects is no longer desired.

There are other and more interesting living things in the northern woods than black flies, to which statement I am willing to testify. I had been running some lines one summer, for the purpose of locating a tote road to some camps where work was to be prosecuted the following fall. It was known among the homesteaders, as well as trappers, that a large bear lived in that vicinity. On one occasion he had been caught in a "dead-fall" that had been set for him, and he had gotten out of it, leaving only some tufts of his hair.

Alone, and while blazing a line for this proposed road, one sunny afternoon, I came onto a table-rock, in a little opening in the woods, where fifty feet in front of me lay a large pine tree that had blown down. As some small brush crackled under my feet, a bear, which I have ever since believed from descriptions that had previously been given me, was the much wanted great bear, stood up in front of me, close by the fallen tree. Presumably he had been awakened from an afternoon nap. The only weapon that I possessed was what is

known as a boy's ax, the size and kind usually carried by land examiners. I had not sought this new acquaintance, nor did I at that moment desire a closer one, but mentally decided, and that quickly, that the wrong thing to do would be to make any effort to get to a place of safety. I therefore decided to stand my ground and to put up the best fight possible with my small ax, in case the bear insisted on a closer acquaintance. Why I should have laughed on such an occasion as this, I never have known, but the perfect helplessness of my situation seemed so ridiculous, that I broke into a loud laugh. I have often wondered why that bear at that moment seemed to think that he had seen enough of the man whom he faced. Certain it was, that he turned on his hind legs, leaped over the log, and disappeared, leaving only the occasional sound of a twig breaking under his feet. So well pleased was I with the less distinct notes of the breaking twigs, that I waited and listened until I could no longer hear any of the welcome, receding music. The excitement having subsided, an inspection of the little ax revealed the fact that the head was nearly, but not quite off its handle. This incident has always been sufficient to convince

The midday luncheon is welcomed by the automobile tourists. (Page 180.)

me that I have no desire to approach nearer to this animal of the northern woods.

In the summer of 1899, some special work was required north of Grand Rapids, Minnesota. Accompanied by my son, Frank Merton, and a cook named Fred Easthagen, I left Grand Rapids on a buckboard drawn by two horses and driven by Dan Gunn, the popular proprietor of the Pokegama Hotel. Our route was over a new road where stumps and pitch holes were plentiful. The team of horses was said to have been raised on the western plains, and objected strenuously to being driven over this stump road. One of the horses balked frequently, and, when not standing still, insisted on running. The passengers, except Easthagen, became tired of this uneven mode of travel, and preferred to walk, being able to cover the ground equally as fast as the team. Easthagen, however, sat tight through it all; he having come from the far West, refused to walk when there was a team to pull him.

Our camp was made in a fine grove of pig-iron Norway, near to which dwelt Mr. and Mrs. Sandy Owens, settlers upon government land. From this camp we were able to prosecute our work for a long period of time. The late summer and autumn were very dry. Both wolves

and deer abounded in this vicinity, and not far away ranged many moose. Large lumbering camps were about ten miles away. Oxen had been turned loose for the summer, to pasture in the woods and cut-over lands. Passing, one day, a root house built into the side of a hill, we pushed open the door, and in there found the remains of an ox. The animal had probably entered the root house to get away from the flies, and, the door having closed behind him, he had no means of escape, so that the poor beast had perished of hunger and thirst. The ground was dry, and all the brush, and twigs, and leaves lying thereon, had become brittle and crackled under the feet of every walking creature. This interfered much with the ability of the wolves to surprise the deer, rabbits, or other animals on which they are accustomed to feed, so that they were hungry. On this account they had become emboldened, so much so, that they would, at nightfall or toward evening, venture near enough to show themselves.

My son was coming in alone, from work one evening, when a pack of wolves followed him for some distance, occasionally snapping out their short yelp, and had he been less near the camp, he might have been in great danger.

As it was, however, they kept back from him in the woods, but not so far as to prevent his hearing them.

An interesting article appeared in one of the numbers of "Country Life in America," on the subject of breeding skunks for profit. From their pelts is made and sold a fine quality of fur, known, to the purchaser, at least, as stone martin. The nearest approach to a natural farm of these animals that I have ever known was that existing at Sandy Owen's cabin, and immediately adjacent to it. These little animals were numerous in the Norway grove in which we were camped.

My son and I slept in a small "A" tent which at night was closed. On one occasion I was awakened by feeling something moving across my feet on the blankets, covering us. I spoke quietly to my son, requesting him to be careful not to move, for something was in the tent, and probably, that something was a skunk. With the gentlest of motions, I moved just sufficiently to let the animal know that I was aware of its presence in the tent. Immediately the animal retreated off of my legs, while we remained quiet for some time in the tent. Then a match was struck and with it a candle lighted, when a small hole was discovered at the foot

of the tent where evidently the animal had nosed its way in, and through which it had retreated. In the morning when my son and I arose, unmistakable evidence was discovered, near where our heads had lain, that his skunkship had visited us during the night.

Mr. and Mrs. Owens left their cabin to visit another settler, several miles distant, leaving the key with the cook, and telling him that he could use it if he had occasion to do so. Coming in one evening from a cruise, the cook went to the cabin to make and bake some bread in Mrs. Owen's stove. A small hole had been cut in the door, to admit the Owens' cat. On entering, Easthagen saw a skunk sitting in the middle of the floor. The animal retreated under the bed, while the cook kindled a fire in the stove and began mixing the dough for the bread. He baked the bread and cooked the evening meal for three persons, considerately tossing some bits of bread and meat near to where the skunk was concealed. Our party ate supper outside the door a short distance from the cabin. The animal remained in the cabin that night and until after breakfast, a portion of which latter the cook fed to it, when taking the broom, he, by easy and gentle

stages, pushed the skunk toward the door, removing the animal without accident.

The state of Minnesota has some excellent laws to prevent the destruction of game animals by the pothunter. Notwithstanding this fact, a greater or less number of market hunters have been able to subsist by killing unlawful game and selling the meat to the lumber camps at about five cents per pound. Many men interested in the ownership of timber lands, have been aware of this fact and have been desirous of preventing the unlawful killing of moose and deer. Some lumbermen, also, have refused to buy the meat from these market hunters. It has not been safe, however, for such people to offer evidence against these hunters. There have been two principal reasons that have deterred them from so doing. One is, that the informant's personal safety would have become endangered, and the other reason is, that his timber would have been in danger of being set on fire. It rests, therefore, with the game wardens, to ferret out and prosecute to the best of their ability, all offenders against the game law.

In the latter part of the season of 1905, my son and I, accompanied by James O'Neill, a frontiersman and trusty employee, made a

canoe trip from Winton down the chain of lakes on the boundary line between Minnesota and Canada, as far as Lake La Croix. We camped at night ,and traveled by day, being always in Minnesota. We saw racks in Minnesota made by the Indians, on which to smoke the meat of the moose they had killed. We counted twenty-one moose hides hung up to dry. The moose had doubtless been killed as they came to the lakes to get away from flies and mosquitoes. All these animals were unlawfully killed.

A more pleasant sight than the one just related was once accorded us while working in this same country. We were quietly pushing our canoes up a sluggish stream that had found its bed in a spruce swamp. There, in many places, pond lilies were growing, their wide leaves resting on the surface of the water. The roots of the lilies are much relished as a food by the moose. We have seen the moose standing out in the bays of the lakes, and in the almost currentless streams, where the water was up to the animal's flanks, or where its body was half immersed, and poking its head deep below the surface in search of the succulent roots of the lilies. On this day, a mother moose and her twin calves had come

"Here he brings his family and friends to fish". (Page 180.)

to this stream to feed. She was in the act of reaching down under the water for a lily root, as we pushed our canoes quietly over the surface of the water into her very presence. The first to observe us was one of the young calves not more than two days old, that rose to its feet, close by on the shore. The mother looked toward her calf before she saw us; then, without undue haste, waded ashore. At this moment the second calf arose, shook itself, then, with the other twin, joined its mother. The three moved off into the spruce swamp as we sat quietly in our canoes, enjoying to the fullest this most unusual opportunity of the experienced woodsman, accustomed as he is to surprises. Our only regret on this occasion was, that we had no camera with us.

CHAPTER XXII.

White Pine—What of Our Future Supply?

IT is claimed that where Dartmouth College is, in the town of Hanover, New Hampshire, on the bank of the Connecticut River, there once stood a white pine tree two hundred and seventy feet in height. That is said to have been the tallest white pine of which there is a record.

Of the thirty-seven species of pine that grow in the United States, the white pine is the best. Nature was lavish in distributing this beautiful and useful tree on American soil, for it has been found growing in twenty-four states of the Union.

The following quotation is from Bulletin 99 of the Forest Service of the United States:

"White pine occurred originally in commercial quantities in Connecticut, Delaware, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin. The

cut has probably exceeded that of any other species. Several timber trees have a wider commercial range, and at the present time two yield more lumber yearly—Douglas fir and longleaf pine—but white pine was the leader in the market for two hundred and fifty years. Though to-day the original forests of this species are mere fragments of what they once were, the second growth in small regions is meeting heavy demand. In Massachusetts, for example, the cut in 1908 was two hundred and thirty-eight million feet, and practically all of it was second growth. It is not improbable that a similar cut can be made every year in the future from the natural growth of white pine in that state. It might be shown by a simple calculation that if one-tenth of the original white pine region were kept in well-protected second growth, like that in Massachusetts, it would yield annual crops, successfully for all time, as large as the white pine cut in the United States in 1908. To do this would require the growth of only twenty-five cubic feet of wood per acre each year, and good white pine growth will easily double that amount. The supply of white pine lumber need never fail in this country, provided a mod-

erate area is kept producing as a result of proper care.

"During the past thirty years the largest cut of white pine has come from the Lake States, Michigan, Wisconsin, and Minnesota."

It is shown in the government's reports that forty-eight per cent of the total lumber output of the United States in 1908 was pine. If something near this ratio is to be maintained, it must be by planting and growing the trees. Under the present system of taxation, neither individuals nor corporations will undertake the work. The investment, at the shortest, is one of thirty years before returns may be looked for, while twice that time is better business. Owners of pine forests are obliged now, and have been in past years, to cut their timber lands clean because of excessive taxation. To encourage the planting and cultivation of new pine forests, it would be better to levy no tax upon the individual's or corporation's young trees until the time that the timber has grown to a size fit to be marketed, and then only on that portion which is cut into lumber. Even with this encouragement it is an enterprise that belongs largely to the state, and from it must emanate the aggressive movement upon land belonging to the state.

On the subject of "Reforestation with White Pine," Prof. E. G. Cheyney, Director of the College of Forestry in the University of Minnesota, states: "Like everything else, a tree does better on good soil, but the pine tree has the faculty of growing well on soil too poor for any other crop.....On the best quality of soil the white pine tree has produced 100 M feet per acre in Europe. On the third quality soil it makes from 40 to 60 M feet. Our forest soils are, on the whole, of better quality than those devoted to forests in Europe.

"The Forest Experiment Station at Cloquet, under the control of the College of Forestry, is now studying this reforestation policy, and the State Forest Service is looking after the forest fires and expects to begin the reforestation of our State Forests this spring.

"There are now two National Forests in Minnesota aggregating about 1,300,000 acres and only 50,000 acres of State Forest. These State Forests should be increased to at least 3,000,000 acres."

CHAPTER XXIII.

Retrospect—Meed of Praise.

IT is hoped that the foregoing pages have thrown some light upon the peculiar occupation of the pioneer woodsman as he is related to lumbering in the Northwest. There has been no attempt to do more than to give a plain recital of some of the events that have occurred in the experiences of one man while pioneering in this special field of the great timber and lumbering industry of the Northwest. Another, engaged in the same pursuit, might easily relate his personal experiences of equal or greater scope than have been herein portrayed, for not all has been said that might be of the woodsman's secluded life.

The occupation of this type of man is fast being eliminated, and soon his place will be known no more. In fact, the time has already arrived when there is no longer any primeval forest in the Northwest into which he may enter and separate himself from others of his own race. Railroads have been built in many directions into these vast forests, and the fine, stately pine trees have been cut down and sent

"Prepare their fish just caught for the meal,
by the open camp fire." (Page 180.)

out over the lines of these railroads. Men and their families have come from various states and from foreign countries, and are still coming to make for themselves homes on the lands now denuded of their once majestic forest trees towering high, and overshadowing all the earth beneath with their green branches and waving plumage.

The neigh of the horse, the low of the cow or the ox, and the laugh or song of the child is now heard where twenty years ago in summer time, stalked fearlessly the moose and the deer, where roamed the bear at will, unmolested, safe from the crack of the white man's rifle.

The schoolhouse springs into existence, where a year ago were stumps and trees. The faithful teacher, fresh from one of the normal schools or colleges of the state, comes into the settlement to train the minds and to help mould the characters of the future farmers, mechanics, statesmen, or financiers; of the doctors, lawyers, judges; or honored wives and mothers. From this ever increasing supply of the newly-born Northwest, are coming and will continue to come, some of the most valued accretions of good citizens to the commonwealth of Minnesota.

Farms are yielding their first crops to the sturdy husbandman. Pleasant, comfortable homes meet the eye of the tourist from the city in summer as he motors over the fairly good roads of the northern frontier. He enters little towns carved out of the woods, and finds, now living happily, friends whom he had known in the city, who are ready to welcome him. He camps by the roadside on the shore of a lake, or on the bank of the Mississippi whose waters flowed on unobstructed in the earlier days herein recorded, but now are harnessed for the better service of man. Here he brings his family and friends to fish and to lunch, or, better still, to prepare their fish just caught for the meal, by the open camp fire. He continues his journey through this unbroken wilderness of less than a generation ago, over improving roads, to the very source of the Mississippi River that is within five minutes' walk of Lake Itasca. Here is a refreshing bit of natural pine forest, owned and preserved by the state of Minnesota, where he and his friends may find shelter for the night, and for a longer period if desired.

In concluding this subject, I am actuated by a desire to manifest my appreciation of the fine manhood possessed by many men whom I have

known, the best part of whose lives has been spent similarily to my own, in the extensive forests that once beautified and adorned the great Northwest.

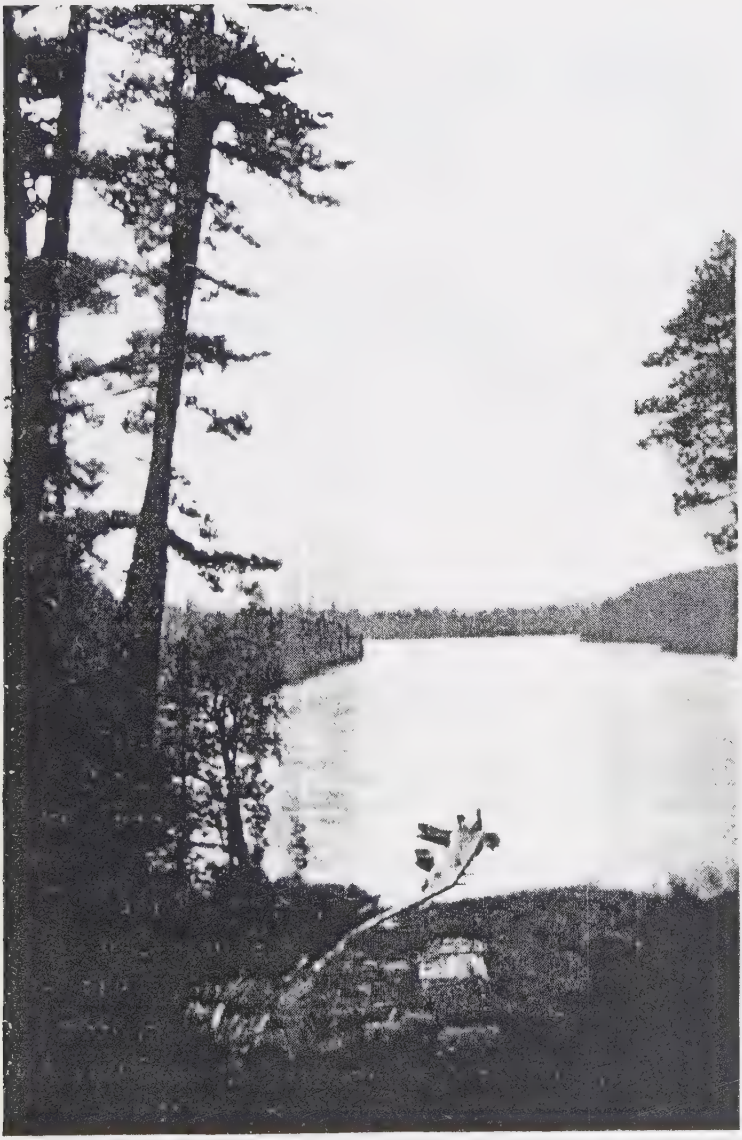
The occupation is one which demands many of the highest attributes of man. He must be skillful enough as a surveyor to always know which description of land he is on, and where he is on that description. He must be a good judge of timber, able to discern the difference between a sound tree and a defective one, as well as to estimate closely the quantity and quality of lumber, reckoned in feet, board measure, each tree will likely produce when sawed at the mill. He must examine the contour of the country where the timber is, and make calculations how the timber is to be gotten out, either by water or by rail, and estimate how much money per thousand feet it will cost, to bring the logs to market. The value of the standing pine or other timber in the woods is dependent on all of these conditions, which must be reckoned in arriving at an estimate of the desirability of each tract of timber as an investment for himself, or for whomsoever he may represent.

Possessing these qualifications, he must also be honest; he must be industrious; he must be

courageous. He must gain the other side of rivers that have no bridges over them, and he must cross lakes on which there are no boats. He must find shelter when he has no tent, and make moccasins when his shoes are worn and no longer of service, and new ones are not to be obtained; he must be indefatigable, for he will often be tempted to leave some work half finished rather than overcome the physical obstacles that lay between him and the completion of his task.

On the character of this man and on his faithfulness, his honesty, his conscientiousness, and on the correctness of his knowledge concerning the quality, quantity, and situation as to marketing the timber he examines, depends the value of the investments. Hundreds of thousands of dollars are invested on the word of this man, after he has disappeared into the wilderness and emerged with his report of what he has seen. The requisitions of manhood for this work are of a very high degree, and, when such a man is found, he is entitled to all of the esteem that is ever accorded to an honest, faithful, conscientious cashier, banker, or administrator of a large estate.

Is he required to furnish an illustrious example to prove the worthiness of his chosen



"He continues his journey . . . to the very source of the Mississippi River". (Page 180.)

occupation, let him cite to the inquirer the early manhood days of George Washington, who penetrated the forests from his home in Virginia, traveling through a country where savages roamed, pushing his course westward to the Ohio River in his search for valuable tracts of land for investment, and surveying lands for others than himself.

His occupation is an honorable one, and those who pursue it with an honest purpose, are accorded a high place in the esteem of those whom they serve, and with whom they associate.

The Pines.

"We sleep in the sleep of ages, the bleak, barbarian pines;
The gray moss drapes us like sages, and closer we lock our lines,
And deeper we clutch through the gelid gloom where never a sunbeam shines.

. . . . . .

We spring from the gloom of the canyon's womb; in the valley's lap we lie;
From the white foam-fringe, where the breakers cringe, to the peaks that tusk the sky,
We climb, and we peer in the crag-locked mere that gleams like a golden eye.

Gain to the verge of the hog-back ridge where the vision
ranges free;
Pines and pines and the shadow of pines as far as the eye
can see;
A steadfast legion of stalwart knights in dominant em-
pery.

Sun, moon and stars, give answer; shall we not staunchly
stand
Even as now, forever, wards of the wilder strand,
Sentinels of the stillness, lords of the last, lone land?"

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